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ABSTRACT

The report analyzes trends in research and programs in special education. Twelve reviewers from each of the divisions of The Council for Exceptional Children (CEC) reviewed abstracts of ERIC (Educational Resources Information Center) documents (project reports, research reports, and conference presentations). The ERIC documents resulted from a computer search of all documents submitted between December 1979 and November 1980. Reviewers completed a matrix on scope, age/educational level, main focus, program or research, and unusual content indicating developing trends. Each reviewer's narrative comments are presented for four components: research and program activity (including discussion on omitted documents and field terms); new models, programs, or research with significant or future implications; state of the art and future trends; and suggestions for future analyses. Reviewers represent the following CEC division areas: administration (Robert L. Guarino); behavioral disorders (Steve C. Imber); mental retardation (Donna Denney Tynan); educational diagnostic services (R. C. Taylor); learning disabilities (Linda Brown); career development (B. Diane Wimmer); communication disorders (Paul A. Waryas); early childhood (Jane DeWeerd); physically handicapped (Barbara Sirvis); visually handicapped (Anne L. Corn); gifted (Felice Kaufmann); and teacher education (Robert G. Simpson). (CL)

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# STATE OF THE ART AND FUTURE TRENDS IN SPECIAL EDUCATION 1980: AN ANALYSIS USING THE ERIC DATA BASE

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# INTRODUCTION

This report constitutes the first attempt to assess the state of the art and future trends in special education through analysis of ERIC documents. For some time, the staff of the ERIC Clearinghouse on Handicapped and Gifted Children, aware of the content in the expanding special education literature, have felt this was possible. Trends have been identified empirically but until now have not been formally documented.

Since the inception of ERIC 15 years ago, the special education community has discovered that research using ERIC holdings stimulates program effectiveness and furthers research. Subsequently, special educators who have used ERIC to improve their programs and conduct research have, in turn, reported results of ongoing work through ERIC. This circular pattern of use and contribution has increased the efficacy of both ERIC and the field.

Urgency to develop a tool to assess trends has increased as this Clearinghouse's host organization, The Council for Exceptional Children, has explored ways to better meet the needs of the changing field of special education through its publications, conferences, and institutes.

Our expectations for this analysis were not grandiose. Rather, as NASA hoped the first Mercury space capsule would get off the ground and into orbit, we hoped this analysis would be a vehicle for some promising results and indications for future refinements.

The 12 authors who contributed their time and expert analytical skills approached their work with the spirit of the true pioneer and researcher. Not only have they discovered ample indications of trends in the field, but their suggestions for future analyses and improvements in the ERIC data base assure future generations of this kind of analysis for years to come.

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## THE MODEL

### Hypotheses

1. Analysis of final project reports, research reports, and conference presentations submitted to ERIC during the last year will result in a summary of the current state of the art in special education.

2. The analysis will identify at least five trends in research and/or programs in special education.

### Selection of Documents for Analysis

The three categories of documents which are abstracted for Resources in Education were selected for the following reasons:

- Final Project Reports usually cover 1 to 3 years and often contain detailed information that has implications for future trends. Although some journal articles may appear during the life of a project, they tend to address only one facet of a project.

- Research Reports usually review findings to the present time and set the stage for future research.

- Conference Reports, presented at a convention to peers in the field, come to a Clearinghouse prior to publication elsewhere and may contain information about a recently initiated project, a model for future research, or progress in a new program or research.

That these categories of documents would have the most recent information in the field is based upon the following assumptions:

1. Every subdiscipline of special education probably has discovered ERIC and contributes documents concerning that subdiscipline.

2. The documents' availability through ERIC enhances their currency because ERIC has a 5 month average turnaround time (from arrival of a document in a Clearinghouse to its availability in the data bases and the 700 microfiche collections).

3. Selection guidelines, especially in the ERIC Clearinghouse on Handicapped and Gifted Children, mandate currency (documents older than 2 years must contain unusually valuable information for inclusion).

Journal articles indexed and annotated for Current Index to Journals in Education and searchable through ERIC were not considered for inclusion because journal article turnaround time (from an editor's receipt of an article to publication of a journal issue) ranges from 4 months to 2 years. In addition, at least one, and usually more, months elapse before a journal citation appears in a data base.

Books and published conference proceedings have turnaround times similar to that of a journal article and were excluded for that reason.

Selection of Analysis and Methodology

An analysis of this nature requires the expertise of professional persons in different areas of special education. Fortuitously, within The Council for Exceptional Children are 12 Divisions, each of which is an autonomous organization devoted to a specific subject area of exceptionality.

Division members are frequently professionally active, know their speciality well, and are aware of peers' work in progress. To enlist the cooperation and expertise of the Divisions for this analysis, using a modified Delphi technique seemed eminently appropriate.

Prior to contacting the CEC Divisions, several staff persons at CEC, who are involved either in oversight of programs or research, were asked what kind of information they would expect to find in a publication on the state of the art and future trends. A preliminary model resulted to serve as a negotiating fulcrum with Divisions.

Accordingly, the president and president-elect of each CEC Division were apprised of the preliminary model and asked to suggest names of Division members who:

1. Would be interested in analyzing selected documents in their Divisions' scopes of interest, and

2. Are known for their analytic skills.

One persons from each Division was chosen from each list of names on the basis of Division president/president-elect recommendation and CEC staff prior knowledge of the person's proven ability (ERIC documents, journal articles, contributed chapters to books, CEC projects) to synthesize and present information.

These persons accepted the task on the basis of the following considerations:

1. A computerized search for abstracts of the specified documents would be made of all ERIC documents submitted between December 1979 and November 1980. The search would be divided according to the CEC Divisions' scopes of interest.

2. Each analyst would receive the portion of the search pertaining to the scope of his or her Division.

3. Each analyst would use the same guidelines for analysis of the abstracts in the search.

4. A timeline for completion of the analysis would be observed.

## The Search

A computerized search of the ERIC data base for the specified categories of ERIC documents bearing major* descriptors in the Divisions' scopes, submitted between December 1979 and November 1980 through all Clearinghouses, yielded a total of 593 documents.

In developing the search strategy, the question of force-fitting documents into Divisions' scopes of interest versus overlapping documents (one document being included in more than one Division's search portion) was examined. Dr. Stanley L. Helgeson of the ERIC Clearinghouse for Science, Mathematics, and Environmental Education stated that in their Clearinghouse's analysis of research, field analysts were split in their support of the two strategies. Discussion among CEC staff resulted in favor of the overlapping strategy on the basis of the need to ascertain whether research or programs have been conducted in specific areas within the Divisions' scopes of interest.

The only categories of documents which did not have overlaps among Divisions were the categories of preservice and inservice teacher education. Because, intuitively, staff felt that the search would divulge few documents in these categories, which indeed was the case, all the preservice and inservice teacher education abstracts were assigned to the Teacher Education Division. Including overlapping abstracts and some inevitable duplication, the total number of abstracts in the search was 1,007.

## Development and Field Test of the Matrix

A matrix, developed for each analyst's use in sorting the documents, provided for each document's identification on the basis of Division scope, age/educational level, main focus, program or research, and unusual content indicative of developing trends. Four CEC staff persons, knowledgeable about research, field tested the matrix with the 42 abstracts in the EC section (documents entered in ERIC through the Handicapped and Gifted Clearinghouse) of the November 1980 Resources in Education. The field test resulted in changes in the matrix, suggestions for guideline development, and questions for analysts to consider in their written discussion of findings.

Despite the improvements, some uneasiness remained about the subjectivity each person brings to an analysis and the many possibilities for choice even within the framework of rather rigid guidelines. This uneasiness was addressed in the cover letter sent with the working materials to each analyst. An offer to clarify a problem or even to change an approach was included. Three of the 12 analysts sought clarification.

Guidelines for the analysis are in the appendix.

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*The early childhood portion of the search was not limited to majors because age/educational level descriptors are usually minor terms.

## Format for Written Analysis

Each analyst was asked to write a 3 to 4 page analysis including statistics and commentary on the following questions:

1. Where on the age/education level continuum has the greatest activity occurred in research? Programs? Others?
2. Where on the age/education level continuum has the least activity occurred in research? Programs? Others?
3. Which principal focus category shows the greatest activity in research? Programs? Others?
4. Which principal focus category shows the least activity in research? Programs? Others?
5. Cite new models, programs, or research that portend a new direction for your field. (Refer to F coded abstract numbers.)
6. Do you know of reports, final project reports, or conference papers that you did not find in your search? Are the omissions serious? Please cite titles and sources, if possible. Please estimate percentage of "missing" documents.
7. Do you use terms in your field which are not reflected in the descriptors assigned to the abstract? Please list.
8. Summarize the state of the art and possible future trends from the above seven tasks. State whether analysis of ERIC documents can assure the state of the art report and predict future trends in your Division's scopes and respond to hypotheses 1 and 2.
9. Compare future trends derived from the analysis with the five trends you identified prior to the analysis. Discuss.
10. Please make suggestions for a future analysis in 2 years (?), 5 years (?) which would corroborate or refute findings in this analysis.

## Report Format

Analyses are listed in alphabetical order by Division title.

The format for presenting all analyses has been changed somewhat from the original guidelines for greater readability and usually includes four components: research and program activity (including discussion on omitted documents and field terms); new models, programs, or research with significant or future implications, state of the art and future trends; and suggestions for future analyses. Following each analysis is a chart which shows program and research activity or lack of activity in that area of special education. An "X" in an age/education level column opposite a principal focus category indicates that either research or program activity has been reported. A blank space indicates that no research or program activity has been reported.

A comment by the editor on findings for hypothesis 1 follows each analysis.

Council of Administrators of Special Educators Incorporated (CASE)
Robert L. Guarino

71 Abstracts

RESEARCH AND PROGRAM ACTIVITY

The greatest activity in the research and program areas occurred in the "Not Specified" category since the majority of documents pertain to both the elementary and/or secondary education area. The abstracts did not specify any age group but were considered with the entire special education program operated at the district level of processes or procedures which were not specific to an age level. Activity in the research area comprised 86% of the documents surveyed; the program area accounted for 72% of the abstracts surveyed.

The least activity in research occurred in the postsecondary area where only two studies were concerned with this topic. The least activity in the program area occurred at the elementary level with approximately 2% of the documents relating to that area of study.

Note: These findings are not unique with respect to research or program activity in the field of special education administration. Most activity in this field has either involved district level programs and a research focus on the entire program or an effort at outlining model processes and procedures that extend to district level programs. Little research in the field has been accomplished in the area of postsecondary education of the handicapped, which suggests that this field might be a fruitful area for future research and program writing.

The greatest activity for research was in the principle focus category of the local education agency (LEA). Twenty documents focused on the area of research in local education agencies in the form of survey research according to trends, role definitions of administrators, implementation of federal and state mandates, and research on program variables. The greatest activity in the program area also occurred in the LEA principle focus category, wherein 13 abstracts related to program orientation documents focused on exemplary programs and procedures at the county, district, or city level; guidelines for implementing programs at these levels; and trends toward providing programs in the least restrictive environment. This particular finding is not surprising since most programs are provided at this level and accountability for processing and assuring that a free appropriate public education is provided rests with the LEA.

The least activity in the research area occurred in the principle focus category of residential school/institutions. This finding was also true relative to the least activity in the program area. This principle focus category probably has not been an activity which has enjoyed a great deal of writing or reporting based on two factors: the low incidence of students served in the program and, more importantly, the result of a lack of writing or reporting in major sources of publication.

There are two reports which were developed at the New York State Education Department which relate to classification of children and the provision of state aid for these children. The title and sources of the documents are cited as follows:

Classification, Standards and Program Services, and

Special Study of the Costs and Proposed Aid Formula for Children with Handicapping Conditions

New York State Education Department, Albany, New York

All terms used in the field of special education administration seemed to be reflected in the descriptors.

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

A review of the documents submitted through ERIC calls attention to several trends that might create a new direction for the field of special education administration. The areas that will be discussed include costs or indices for the special education population, program variables, administrative role, staff development, higher education, and the role of the state education agency.

### Costs or Indices for the Special Education Population

This review would indicate that costs provided for special education programs will triple by 1985 over a 10 year period beginning in 1975. These costs, which are now approximately twice the cost of education of regular students, will widen during this 10 year growth period. Based on the documents reviewed, the most costly factor would appear to be federal mandates imposed on LEA's. Furthermore, the LEA's (based on wealth) will increase their fiscal effort to meet administrative and legal requirements.

Based on available documentation, the actual number of handicapped children will decline by 1982 and will peak at approximately 9% of the regular student population. Another trend for this area is the recommendation for funding personnel or program units rather than individual children.

### Program Variables

Local education agencies will continue to use out-of-district facilities to provide programs for handicapped children. Smaller LEA's will continue to place larger numbers or a larger percentage of their handicapped students outside of district facilities than larger LEA's. There will be an increased emphasis at the local education agency level on the broader aspects of mainstreaming. That is, attention will be paid to the physical environment, efforts to promote interaction, efforts to enhance a positive self image and increase self confidence, as well as attention paid to accessibility factors.

Vocational skills for learning disabled students appear to be more important than opportunities for mainstreaming for these students. It would appear than an emphasis at the secondary level will be in the area of developing these skills.

The survey of documents also reveals that social skills will be more important for entry level competencies in vocational education at the secondary level and that the role of the teacher aide in assisting the vocational education area is important.

Administrative Role

Only two abstracts dealt with the role of the special education administrator. One was primarily concerned with special education cooperatives and the task performance areas important for success in this role. This document emphasizes that long range planning was an essential task performance area for success in the field. A relatively new area for writing and research concerned the conditions under which students not classified or declassified as handicapped would experience success. A study outlined, based on survey research, the various steps to promote success for these particular students.

Title Staff Development

Two abstracts in staff development concerned the competencies of the teacher and the IEP process. The former outlined competencies of regular teachers as far as their importance in reaching success for the mainstreamed student. Areas such as program planning were viewed as essential competencies. With respect to IEP development, it seemed important that local input be necessary for preservice and inservice training. In addition, documents stressed the importance of completing the IEP in relation to the student's future needs, and the deemphasis of specialized vocabulary, which was termed not to be functional in IEP writing. A significant area of study was one that involved the translation of certain kinds of assessment for evaluation information into appropriate educational programs.

Higher Education

A number of studies dealt with cooperative efforts between vocational rehabilitation and the community college. It would appear that these cooperative efforts would lead to more successful integration of students at the community college level. Other fruitful areas of program and research activity concerned the use of mentor support, access to information on campus including architectural access, the use of interpreters and notetakers, and flexibility in scheduling.

State Education Agency Role

It would appear that the role of the state education agency vis-à-vis its leadership is important in the interpretation of rules and regulations as well as in the clarification of policies and procedures. These variables seem to influence how the local education agency procedures were outlined

and implemented. In addition, there was an effort through these writings to recommend operationalizing definitions at the state level so as to assist in classification of handicapped children.

## STATE OF THE ART AND FUTURE TRENDS

The state of the art in the field of special education administration can be described as a further refinement of studies in the area of mainstreaming or least restrictive environment, competencies in staff development in the preservice and inservice area for special and regular education teachers, a discussion of the administrator's role, both with the state and the local level as well as efforts at the higher education level for success and accessibility in programming. Future trends relate to a further study of these topics. An analysis of ERIC documents such as this survey dealt with should insure continual update in the state of the art report and would be indicative of predicting future trends. However, a review of the literature in the field of regular education administration and finance, as well as the area of special education, should be conducted to complete this analysis.

Hypothesis 1 is partially correct in that the current state of the art in special education needs to encompass an additional review of the literature.

Hypothesis 2 is true in that this survey developed at least five trends in this particular area as summarized earlier.

Trends that were identified prior to the analysis had to deal with: (a) the role of the special education administrator focusing on functional needs of students and noncategorical programs; (b) the organization and administration of programs organized on the continuum of services approach highlighting the area of consultation to regular education; (c) the costs of program acceleration and a greater reliance placed on local revenues versus state and federal; and (d) a focus on the underserved population including the adjudicated and institutionalized individual as well as the severely and profoundly handicapped. The trends derived from the analysis relate the cost area, but concern what the particular program cost might be rather than the direction of who might bear the cost. The future trends derived from the analysis also were more specific and tended to concentrate on specific program variables. In addition, many abstracts focused on the staff development activities, which were not identified prior to the analysis.

## SUGGESTIONS FOR FUTURE ANALYSES

Any future analysis over the next 2 to 5 years should follow this particular format but should include an additional group of individuals in certain areas of expertise (e.g., staff development, finance, vocational rehabilitation, etc.). This study should be updated on a 2 year basis.

EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is partially supported. The problem seems to be omission of literature on regular education administration and finance, an area which certainly is inextricably interwoven with special education administration and finance. Because costs and administration of special education programs are indicated to be a major focus of documents in this analysis, one would hope that studies will be conducted addressing the tension between special and regular education administration and costs, with reports submitted to ERIC to complete this gap in the ERIC data base.

Special Education Administration
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | | X |
| State Education Agency | | | | | X |
| Local Education Agency | X | X | X | | X |
| Teacher Education - Preservice | | | | | X |
| Teacher Education - Inservice | | | | | X |
| Special Teacher/Class | | | | | X |
| Regular Teacher/Class | | | X | | X |
| Support Personnel | | | | | X |
| Interagency Cooperation | | | | X | X |
| Parent Education/Parent School Partnership | | | | | X |
| Prevention | X | | | | X |
| Assessment, Identification | | | | | X |
| Residential School/Institutions | | | | | |
| Rehabilitation/Independent Living | | | | X | |
| Models | | | | | X |
| | | | | | |
| | | | | | |
| | | | | | |

Council for Children with Behavioral Disorders (CCBD)
Steve C. Imber

144 Abstracts

RESEARCH AND PROGRAM ACTIVITY

Of the 144 abstracts reviewed, 141 were related to the area of behavioral disorders. Of these abstracts, 72 were determined to have only one focus (51%). The remaining 69 abstracts had more than one focus. These abstracts yielded a total of 155 entries, or 3.3 entries per abstract. Three of the original 144 abstracts were not related to the field of behavioral disorders.

An analysis of those abstracts with only one focus indicates that the most frequently selected age/education level was that of secondary education ($n$ = 26, 31%). A total of 16 (22%) abstracts involved elementary school aged populations. In further analyzing the data, of the 26 abstracts relating to secondary populations, 9 involved programs (35%) while 15 involved research (58%).

An analysis of those abstracts (69) with multiple entries (155) revealed that the greatest activity appeared to occur at the early childhood level ($n$ = 50, 32%). Of the 50 entries pertaining to the early childhood level, 7 (14%) were categorized as programmatic, 4 (8%) as research, and 39 as "Other." It should be noted that 46 of the 155 multiple entries involved secondary populations (30%). Of the 46 entries related to secondary populations, 16 (35%) were related to programs, 22 (48%) involved research, while 8 involved programmatic and research information (17%).

In reviewing the various education/age levels, the least frequently cited level in documents with one focus was that of early childhood ($n$ = 3, 4%). The area of postsecondary education only yielded 7 entries (10%) out of the 72 abstracts with one focus.

An analysis of those abstracts (69) with more than one focus revealed that the least frequently cited age/education level was that of postsecondary ($n$ = 11, 7%) followed by those listings relating to elementary level populations ($n$ = 16, 10%). A further analysis of these results indicated that only 3 of the 11 postsecondary entries were program oriented. Eight of these entries involve research. Of the 16 elementary level entries, 7 were programmatic in nature, 7 involved research, and 2 contained information relevant for program development and research. While some entries relating to these two infrequently cited age/education levels concerned programs (28%), the majority of the abstracts with more than one focus involved research (73%).

In analyzing the 72 abstracts with one focus, it is apparent that the most frequently cited categories include the following: assessment ($n$ = 26, 36%); other ($n$ = 8, 11%); support personnel ($n$ = 7, 10%); methods ($n$ = 6, 8%); models ($n$ = 6, 8%); residential ($n$ = 6, 8%); and rehabilitation ($n$ = 5, 7%). From these results it is clear that information regarding the identification and assessment of children with behavior disorders is by far the most frequently cited principal focus for abstracts with only one focus.

Of the 69 abstracts with more than one focus (155 entries), the most frequently cited foci include: prevention ($n$ = 21, 14%); rehabilitation ($n$ = 16, 10%); methods ($n$ = 16, 10%); residential ($n$ = 15, 10%); interagency cooperation ($n$ = 11, 7%); special education classes ($n$ = 10, 6%); and parental cooperation and communication ($n$ = 9, 6%). It should be noted that 18 of the 155 entries (12%) were classified as "Other." From these results it can be seen that abstracts with more than one focus primarily involved the categories of prevention, rehabilitation, and methodology.

Tabulation of the data reveals that very little activity has occurred in the areas of federal policies, state and local education agencies, preservice and inservice education*, and parent involvement.

In order to systematically determine the percentage of "missing" documents, an independent review of ERIC abstracts relating to behaviorally disordered children and youth would need to be conducted. A comparison could then be made between the results of this review process and the 144 abstracts analyzed by this reviewer. This reviewer is aware of at least three federally funded projects which describe information relevant to behaviorally disordered children and youth. Dr. Denzil Edge, Associate Professor of Special Education at the University of Louisville, has been involved in parent training program activities which may have significant implications for behaviorally disordered children and youth. Dr. Barbara Larrivee, Assistant Professor of Special Education at Rhode Island College, has a federal grant which is directed toward empirically determining effective methods for managing children with behavior problems in the regular classroom. Dr. Richard Dickson, Associate Professor of Special Education at Rhode Island College, also has a federal grant which is designed to critically examine and improve the IEP process. Although this grant is not specifically directed toward behaviorally disordered children, Dr. Dickson is presently analyzing data that appear very relevant to that population. Dr. Dickson noted that, although teachers frequently cite behavioral problems as a primary reason for referral, very few children are ultimately classified as behaviorally disordered. Furthermore, there appears to be very little emphasis on goals, objectives, and methodologies designed to improve an appropriate classroom behavior even when one of the primary reasons for referral was maladaptive behavior.

It might be possible to develop a joint project between the ERIC Clearinghouse on Handicapped and Gifted Children and The Council for Children with Behavioral Disorders which could provide additional information on grants for conference presentations that have not previously been submitted to ERIC but which, nevertheless, may contain valuable information pertaining to behaviorally disordered children.

This reviewer found that descriptors which accompanied each abstract appear to be appropriately related to terminology associated with the field of behavioral disorders. The classification grid did not include any specific principal focus category relating to methodology. Since a number of abstracts included information of a methodological nature, this reviewer included a category entitled "Methods."

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*See Teacher Education Division analysis for confirmation of this statement.

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

Two ERIC abstract references (Braaten, ED 187 049P; Hoeltke, ED 175 170) appear to have significant implications for the education of behaviorally disordered children and youth in public school settings.

The Braaten abstract describes the Madison school model. This program provides intensive instructional and treatment services for seriously emotionally and behaviorally disordered adolescents who lack coping skills. The program is oriented toward successfully reintegrating behaviorally disordered secondary students into regular classroom settings as rapidly as possible. A combination of behavior modification and group counseling techniques are utilized. Parent involvement and community agency coordination are also considered key components of this program.

The Hoeltke article examines research relating to mainstreaming behaviorally disordered secondary level students. Hoeltke and others conclude that behaviorally disordered youth can be helped through a resource room mainstreaming based program.

Another study (Smith, ED 176 439) examined the reintegration of emotionally disturbed pupils into the Iowa Public Schools. The results indicated that perceptions of a behaviorally disordered child's special education teacher are a significant factor relating to the child's readiness to return to a regular classroom setting. Respondents who completed a questionnaire appeared more concerned with the humane qualities of the regular classroom teacher than with the teacher's specific knowledge of educational techniques or philosophies.

A number of abstracts relating to the treatment of juvenile delinquents emphasized vocational assessment and skill development. It is important to note that abstracts relating to juvenile delinquency were included with those abstracts relevant to behaviorally disordered children and youth. Although it is far from clear whether all juvenile delinquents can be considered behaviorally disordered, it seems likely that if the federal definition of emotional disturbance were applied to most delinquent youths, a considerable number of them could be classified as emotionally disturbed. References that emphasize the development of vocational skills appear to realistically reflect a concern that a totally academically based program will be insufficient in meeting the needs of behaviorally disordered adolescents (Wiederanders, ED 176 011; Laten and Katz, ED 180 141; Johnston, ED 173 712).

## STATE OF THE ART AND FUTURE TRENDS

It was hypothesized that an analysis of final project reports, research reports, and conference presentations submitted to ERIC during the last year would result in a summary of the current state of the art in special education. This review included articles presented to ERIC during the last 3 to 4 years. An analysis of the results does appear to clarify areas of special interest as well as areas of benign neglect in terms of age levels, principal foci, and program versus research.

A second hypothesis stated that the analysis would identify at least five trends in research and/or programs in special education. This reviewer believes that if such an analysis were conducted every 2 or 3 years, it might indeed be possible to assess trend development in the field of special education. This analysis can only indicate areas of the greatest and least activity during the past few years. It is not possible to indicate changes in trends without an identical analysis based upon abstracts obtained during an earlier period of time.

A considerable amount of attention is being devoted to the identification and assessment of behaviorally disordered children and youth. There is also considerable interest in developing programs for behaviorally disordered or delinquent adolescents. There also appears to be at least some interest in developing effective mainstreaming programs for this population.

This reviewer suggested six trends which he believed would emerge from the data:

1. Greater increase of parent-professional communication and parental involvement within school settings.

2. Greater degree of data based and computer assisted IEP development, implementation, monitoring of programs for emotionally disturbed children and youth.

3. An increase in the use of affective education programs and related research.

4. A decrease in the use of least restrictive environments for behaviorally disordered children.

5. An increase in the diversity of alternative programs for secondary emotionally disturbed students.

6. An increase in vocational assessment and vocational training programs for emotionally disturbed youth.

As previously stated, it is not possible to assess whether there have indeed been significant increases or decreases in the areas suggested by these trends. However, it is possible to at least note whether a number of abstracts related to the aforementioned trends. Seven entries did in fact concern parent education and parental involvement. Most of these entries related to very young children. There appears to be a dearth of information devoted to parent communication and parental involvement for elementary and secondary populations. This reviewer only identified one article that was specifically concerned with data based IEP development, implementation, and monitoring of programs for behaviorally disordered children and youth (Deno).

None of the references described a computer assisted model for developing IEP's. A few abstracts related to the area of affective education. However, it is clear that a far greater number of abstracts included information on behavior modification techniques (15 entries). This reviewer did not find any abstracts that suggest a reverse in a trend toward placing emotionally disturbed children in the least restrictive environment. Some

alternative education programs for secondary emotionally disturbed students were identified. However, it is not presently possible to ascertain whether or not there has been an increase in development of such programs. There does appear to be considerable interest in the development of vocational assessment and training experiences for emotionally disturbed youth, although it is not possible to tell whether there has been an increase in interest in this area.

To some degree the state of the art regarding literature on behaviorally disordered children is reflected through omission of abstracts examining certain critical questions. We need far more information on which types of behaviorally disordered children and youth respond best to varying types of treatment programs. We need far more information relating to the effectiveness of residential treatment centers for severely emotionally disturbed children and youth. Similarly, we need to know far more about the relative long term effects of resource versus self contained classroom assistance* on emotionally disturbed students.

## SUGGESTIONS FOR FUTURE ANALYSES

1. It is recommended that a uniform approach to tabulating single or multiple entries be specified.

2. It is suggested that a "Methods" subheading be added to the principal focus categories.

3. It may be especially helpful to subdivide this "Methods" category into behavioral, humanistic, or psychodynamic strategies. It might also be appropriate to note those methods which are primarily oriented toward developing academic or vocational skills.

4. It is recommended that at least two individuals independently complete this analysis process in order to increase the reliability and validity of the results.

5. Individuals completing future analyses might find it especially helpful to have 10 abstracts analyzed and coded in the same way as the sample abstract illustrated in the document analysis guide (page 5), especially if these abstracts relate to behaviorally disordered children and youth. Another more time consuming and costly alternative would be to have a group training session on coding and analysis.

6. It might be helpful to use percentages as a means of comparing areas of principal foci, respective age/education levels, and the degree to which abstracts are program or research oriented. If the analysis process could be refined in the future, and a reliable means of obtaining percentages could be insured, it would be possible to assess the relative increases or decreases in the various categories illustrated on the analysis grid. Future trends could then be more easily identified.

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*Personal communication with Dr. Richard Dickson, Rhode Island College

7. If a more sophisticated analysis is required, it might be possible to develop simple computer programs to assist the analysis of the data. Such an analysis would be helpful in determining frequency counts, percentages, and statistically significant increases or decreases in categories of principal focus, etc.

8. Future analyses will be more reliable if some a priori determination is made regarding the inclusion of abstracts pertaining to juvenile delinquency. This examiner also found several references pertaining to the prevention of behavioral disorders which were classified as "Other." Almost all of these refererces were derived from conference proceedings.

This analysis procedure appears to have some utility for determining trends relevant to the education and treatment of behaviorally disordered children and other populations of handicapped children and youth. It is hoped that future refinements in the process will provide even more meaningful results which can be used to identify target areas for future research.

EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is hesitantly supported. Three ongoing programs cited relative to literature missing from the search may not yet have reported findings through the kinds of documentation featured in this analysis or during the time frame. The author notes that some abstracts were of 3 to 4 year old documents, whereas the time limitation for the search was December 1979 through November 1980. Documents with abstracts appearing in the December 1979 RIE probably arrived in a Clearinghouse between July and September of that year. An older document may be selected on the basis of quality, although selection guidelines stress recency as well as quality of content.

Behavioral Disorders
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | X | | X | | X |
| State Education Agency | | | X | | X |
| Local Education Agency | | X | | | |
| Teacher Education - Preservice | | | | X | |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | X | X | X | X | X |
| Regular Teacher/Class | X | | X | X | X |
| Support Personnel | | | X | X | X |
| Interagency Cooperation | X | X | X | X | X |
| Parent Education/Parent School Partnership | X | X | X | | |
| Prevention | X | X | X | | X |
| Assessment, Identification | X | X | X | X | X |
| Residential School/Institutions | | X | X | X | X |
| Rehabilitation/Independent Living | | X | X | | X |
| Models | X | X | X | X | |
| Methods | X | X | X | | X |
| Other | X | X | X | X | X |
| | | | | | |

Division on Mental Retardation (CEC-MR)
Donna Denney Tynan

86 Abstracts

RESEARCH AND PROGRAM ACTIVITY

Publications dealing with research and model programs concerning the mentally retarded tend to indicate the interests of professionals in the area and reflect concern for those individuals who in the past have been subject to inadequate or inappropriate programming. Although the category of nonspecified age level shows the greatest number of monographs (43), the majority of these were concerned with school aged children, both elementary and secondary, or contained guidelines for research or programming without regard to any age level. The postsecondary group, with 19 publications, shows the growing concern for the adult developmentally disabled. Research publications followed the same pattern, with 29 in the nonspecified age group and 18 in the postsecondary age group. These figures are followed closely by the elementary age group projects at 16. In the area of programs, the nonspecified age group again shows the greatest number of reports dealing with programming models (21). However, the elementary age group, with 12 publications on programs, reflects the continued interest in this area.

The least amount of activity has occurred in the secondary age level group. Research in this category was limited to 10 abstracts. Programming reports were only slightly higher with this group (8) than with the postsecondary group (7). A possible reason for this is the greater number of projects dealing with cross age groups.

The category dealing with models, programs, and procedures appropriate for replication shows the greatest activity both in research (30) and in programs (3). The assessment category, with emphasis on innovative, nondiscriminatory assessment techniques, shows 15 reports in the area of research. Twelve (12) programming projects were reported in the rehabilitation/independent living category. This tends to reflect the growing interest in vocational/career education programs which can lead to more successful and independent adult lives for the mentally retarded.

The categories of Local Education Agency (LEA) and Support Personnel showed no writing activity in either research or programs. The Regular Teacher/Class category also showed no research activity. Other categories which reflect an absence of writings in the area of programs are Federal Policy and State Education Agency (SEA).

Many reports and conference papers are submitted to journals such as Education and Training of the Mentally Retarded and Mental Retardation rather than to ERIC and are not reflected in this document. An estimate of the missing documents is approximately 50%.

Terms in use in the field of mental retardation that are not reflected in the descriptors include:

severely/profoundly handicapped
trainable mentally retarded
educable mentally retarded
noncategorical preschool
generic teacher education

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

Twenty-eight publications were identified as reflecting new directions in the field of mental retardation. Identified trend areas include generic teacher training, parental involvement, community models, deinstitutionalization for the severely/profoundly handicapped, and unbiased assessment techniques, particularly in the area of adaptive behavior. With the exception of generic teacher training, these projections were substantiated by the documents reviewed.

## STATE OF THE ART AND FUTURE TRENDS

Documents included in this project tend to reflect continued interest in reporting on government funded model programs and research on the effects of these programs. The growing interest in both preschool and adult mentally retarded can be noted in the research and programming reports. Career education is another area which evidences interest, as indicated by the large number of reports included. Learning characteristics, attitudes toward the mentally retarded, and identification of special programming needs are concerns with which the literature has dealt only on a superficial level. Noticeable absences of research and program models were found in the areas of teacher training* and support personnel. Paraprofessional training is another area that was not included as a principal focus category, nor were model programs or research in this area incorporated. Needs in the area tend to cluster around the concerns for efficient methods for educating the mentally retarded at all levels, with specific interest in preparing these individuals for self sufficiency. Additional work is needed in the area of assessment to provide reliable and valid methods of identifying the mentally retarded and useful information to design appropriate educational programs. The area of prevention offers still another area of challenge for the future. Prenatal and neonatal techniques of medically or behaviorally intervening to prevent or lessen the effects of an initial disability will be of great interest as the field develops.

The future trends that were identified prior to analysis included: deinstitutionalization, generic teacher training, parental involvement, models for the severely/profoundly retarded, and unbiased assessment. In analyzing the reports, the emphasis on programs and research dealing with the previously unserved populations of preschool handicapped and of adults is growing. These areas in relation to assessment, parent involvement, interagency cooperation, and teacher training will continue to develop throughout the 1980's.

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*See Teacher Education Division analysis for confirmation of this statement.

## SUGGESTIONS FOR FUTURE ANALYSES

It is my professional opinion that future analyses should be conducted biannually to corroborate or refute the findings in this analysis. The analysis would be of value to researchers and program development personnel to plan for future needs and to provide valuable information to funding agencies.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 seems to be supported, despite an author bias toward journal article inclusion. Approximately 50% of documents are estimated to be missing based on the author's speculation that many reports and conference papers are submitted to journals. Nevertheless, statements on known motions in the field and corroboration by documentation point to utility of the model for assessing the state of the art for this Division.

Descriptors cited as not reflecting terms used in the field of mental retardation and explanations follow:

| FIELD TERMS | ERIC DESCRIPTORS |
|---|---|
| Severely/Profoundly Handicapped | Severe Disabilities (new)<br>Severe Mental Retardation (new) |
| Trainable Mentally Retarded | Moderate Mental Retardation (new, but was not posted with other new descriptors and must be used with old descriptors)<br>Trainable Mentally Handicapped (old) |
| Educable Mentally Retarded | Mild Mental Retardation |
| Noncategorical Preschool | Under advisement. A problem exists in translating the noncategorical concept to a descriptor. |
| Generic Teacher Training | Also under advisement for same reason. |

Mental Retardation
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | | X |
| State Education Agency | | | | | X |
| Local Education Agency | | | | | |
| Teacher Education - Preservice | | | | | |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | | | | | |
| Regular Teacher/Class | | | | | X |
| Support Personnel | | | | | |
| Interagency Cooperation | | | | X | X |
| Parent Education/Parent School Partnership | X | X | | | X |
| Prevention | X | | | | |
| Assessment, Identification | X | X | X | X | X |
| Residential School/Institutions | | | | | X |
| Rehabilitation/Independent Living | | X | X | X | X |
| Models | X | X | X | X | X |
| Learning Characteristics | | X | | X | X |
| Other | | | | X | X |
| | | | | | |

Council for Educational Diagnostic Services (CEDS)
R. C. Taylor

126 Abstracts

RESEARCH AND PROGRAM ACTIVITY

One hundred twenty six (126) ERIC documents published between December 1979 and November 1980 were selected and assigned to CEDS for analysis. Documents were reviewed and analyzed in terms of their potential for generating a summary of the current status and possible emerging trends in the educational diagnostic services areas. Some "filing and hammering to fit" was needed in this analysis, and certainly differences of opinion related to overlap, type of article, target or research population, and principal focus seemed possible in this portion of the information analysis project. While research/program articles were distinguishable, and with the exception of a number of "no age, cross age" entries, age/educational levels were relatively easily grouped, sorting in terms of primary focus involved somewhat more arbitrary categorizing. Nevertheless, despite some limitations, gleanings from this collection of documents allowed some reasonable speculation regarding the current status and emergence of new directions in research and programming in the field of educational diagnostic services.

The age/education level showing the greatest research activity was the early childhood category. Twenty-nine research articles were included in that category. The early childhood category also produced the greatest activity in programs, with 13 articles. The least research activity occurred in the postsecondary level with 9 articles; likewise, the least program activity occurred in the postsecondary level with 4 articles. There were no "Other" categories, with the exception of a few articles classed as both research and program in orientation.

One artifact of the classification system used in this analysis was that it did not provide an age/education level classification labeled elementary/secondary. Thus, some 38 articles encompassing grades 1 to 12 were relegated to the nonspecific category. As a result, several cells of the matrix under age/education levels grades 1-8 and 9-12 were blank. It should be noted that significant amounts of research and programming did occur in the public schools grades 1 to 12 during the time period selected for examination.

The principal focus category showing the most activity was assessment/identification. There were 40 research articles, as well as 8 program articles in this focus. The parent education focus had the most activity in programs, with 10 articles presented in the collection. The least amount of research activity occurred in the teacher education/preservice* focus, where there was no research noted. Teacher education inservice/preservice,* interagency cooperation, and prevention focus categories presented an equal paucity of program activity with one article in each area.

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*See Teacher Education Division analysis for corroboration of minimal research and program activity.

No serious omissions of reports, projects, conference papers, or research was noted. Descriptors assigned to the abstracts appeared to reflect terms typically used in the educational diagnostic services area.

## STATE OF THE ART AND FUTURE TRENDS

Frequent concern was expressed, both directly and indirectly, regarding problems of the technical adequacy of tools used for identification, diagnosis, and placement decisions. There seemed to be an emerging sensitivity to standards of measurement which seemed to portend a slowdown in the use of inadequate measurement which is currently epidemic.

The frequency of articles specifying research and programming related to learning disabilities portends a possible continuing surge in measurement and differential diagnosis research on learning disabilities problems. One might expect a flow of research articles concerning the efficacy of neuropsychological assessment batteries and other tools with potential for differential diagnosis in learning disabilities.

There seemed to be a continuing trend in the swing away from an emphasis on independence training which was manifested by the frequency of both direct and indirect references in the reviewed documents to vocational skills, careers, adaptive behavior, vocational training, programming, placement, evaluation, etc.

Compliance problems and issues were another continuing focus in these documents. Articles relating the problems of "doing business" under the mandates of various education related federal laws, i.e., costs to the state and local education agencies of paperwork; costs of developing, establishing, and refining data collection systems; storage, retrieval, and dissemination problems; ethical management of data collections; and the travails of providing program and physical access were signaled in the collection.

Recognized in this collection was the subpopulation of pupils who require educational diagnostic services because they no longer fit eligibility criteria for special education services. The ERIC documents provide evidence of research on these transitional students, and research on the social, emotional, and academic aspects of these "declassified" persons was a likely trend.

To the extent this collection reflects the current status of research efforts in the field of educational diagnostic services there seemed an alarming paucity of activity in the focus areas of teacher education,* interagency cooperation, residential/school programs, etc. Research referencing the gifted, support personnel or programs and models related to training, and certification and utilization of pupil services specialists was nonexistent in this collection. Limitations in these areas spanned the age/education continuum. For the most part "trends" appeared to be continuing rather than new. Of some curiosity was what seemed to be an emerging concern for addressing the problems of declassified students.

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*See Teacher Education Division analysis for confirmation of this statement.

The two hypotheses are tentatively supported. It appears that an analysis of ERIC documents could provide a fair assessment of the current status in special education with regard to research and program development in the educational diagnostic services areas, and that both continuing trends and emerging new concerns could be detected.

Before beginning the CEDS-ERIC document analysis, several trends deemed likely to be addressed in the documents were postulated. These "CEDS trends" comprised several overlapping clusters of related research and program activities, including developments and improvements in special educational diagnostic services areas related to (a) prevention activities (early identification, planning, intervention), (b) habilitation activities (vocational, career, independent living, etc.), (c) resource pooling activities (agency linkages, cooperative planning and programming), (d) assessment activities (differential diagnosis, technical adequacy of measurement instruments, program evaluation techniques, discrimination and attitude issues), and (e) parent involvement activities (parent education, training, counseling; IEP skills, test interpretation skills, responsibilities and rights). For the most part, these trends proved to be depicted in the document collection analyzed.

Significant research and some program activities were noted across the entire age/education continuum in the focus category of assessment and identification. This was expected from the selection bias implicit in the IAP task assignment. The state of the art and possible future trends findings are capsulated in the 10 statements listed above.

## SUGGESTIONS FOR FUTURE ANALYSES

This project provides a start on what may become a valuable step in the analysis and dissemination of ERIC data.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is tentatively supported. A sufficient amount of documentation appeared in this portion of the search for an extensive analysis. If this reporting trend continues, a future analysis should provide an even more accurate state of the art.

Educational Diagnostic Services
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | X | X |
| State Education Agency | | | X | | |
| Local Education Agency | X | | | | X |
| Teacher Education - Preservice | X | | | | |
| Teacher Education - Inservice | X | | | | X |
| Special Teacher/Class | X | | | | X |
| Regular Teacher/Class | X | X | | X | X |
| Support Personnel | X | X | | X | X |
| Interagency Cooperation | X | | | | X |
| Parent Education/Parent School Partnership | X | | X | | X |
| Prevention | X | X | | | X |
| Assessment, Identification | X | X | X | X | X |
| Residential School/Institutions | | | X | X | X |
| Rehabilitation/Independent Living | | | X | | X |
| Models | X | X | X | X | X |
| Other | X | X | X | | X |
| | | | | | |
| | | | | | |

Council for Learning Disabilities (CLD)
Linda Brown

124 documents reviewed
4 documents omitted because of duplication
6 documents omitted because of improper assignment

## RESEARCH AND PROGRAM ACTIVITY

### Methodological Concerns with the Document Analysis

The matrix used to classify the ERIC documents in this study presented some problems. Over half of the documents assigned to CLD fell into the "Not Specified" age category and into the "Other" principal focus category.

Most of the documents placed in the "Not Specified" category were a result of the direction to use that category not only for documents where age was unknown, but also for documents that spanned more than one age term. Most of the age group overlap involved junior high school students in grades 7 and 8. The classification system used in this analysis placed such students into the "Elementary" age group, while most research classifies them as "Secondary." Research involving a continuum that extended from grades 7 through 12 spanned both the "Elementary" and "Secondary" age classifications, and documents of this type had to be classified "Not Specified."

The largest single age category was "Elementary" (32 documents, 25%). However, if one assumes that most of the studies which were classified "Not Specified" involved students in junior high school, then the combined total of "Secondary" (9 documents, 7%) and "Not Specified" (57 documents, 46%) accounts for well over half of those reviewed. A figure of this magnitude is a more accurate reflection of the increasing interest in adolescent learning disabled students, particularly in career and vocational programs. Ten percent of the reviews (15 documents) involved "Early Childhood" programs and about 8% (10 documents) involved "Postsecondary" training. Most of the latter described programs for learning disabled college students.

Approximately half of the documents (57 documents, 46%) fell into the "Other" principal focus category. They could be divided into three major subcategories:

1. Fifteen documents (12%) were compilations of information, each reporting a variety of research or training procedures in a single document. Most of these could not be classified into unique categories using the matrix definitions.

2. A second subcategory included research involving specific procedures that were not school based, such as the training of memory function using abstract or nonacademic applications. Most of this research had a psychological base. Sixteen documents (13%) were of this type.

3. There also was a large body of research (11 documents, 8%) studying general academic achievement, usually in the area of reading. Most of these studies involved both normal and handicapped populations and, therefore, did not meet matrix specifications for a "Regular Class" or "Special Class" focus.

Using this new classification system, only four (3%) truly miscellaneous documents remain.

Assessment" was the next largest focal category (38 documents, 31%), followed by "Model Programs" which constituted about 11% of the reviews (13 documents). There were no documents in the "Teacher, Preservice" or "Teacher Education, Inservice,"* a surprising finding given the current interest in these areas. There also were no documents in the "Residential School" category.

In summary, it appears that the ERIC documents reflect a strong interest in the evaluation of learning disabled individuals of school age. There also seems to be a significant body of theoretical research that is not school based, most often conducted at multiple or unspecified age levels. Seventy-two documents described research and 53 described some aspect of programming for the learning disabled. No documents reported research or programming that might be considered futuristic or trend-setting.

## OMISSIONS AND NO DOCUMENTS WITH NEW OR SIGNIFICANT INFORMATION

It is difficult to write a state of the art treatise based on the ERIC documents assigned to CLD for review. Very few of these documents represent the state of the art in learning disabilities as it is identified in the current professional literature and at professional conferences.

The information contained in the vast majority of the documents resembles what appeared in the professional literature 10 or 15 years ago, in the late 1960's or early 1970's when the field was in its infancy. Few of the documents reflect currency and none is futuristic in scope. Large gaps in the ERIC information base are apparent. For instance, in addition to the discrepancy with the professional literature, ERIC contains very few references from CLD presentations at international CEC conferences and there are none from the International Conference on Learning Disabilities, even though both of these forums have showcased new and exciting trends in learning disabilities during the past year. In addition, research from only one of the five national Learning Disabilities Research Institutes (based at the Universities of Kansas, Virginia, Minnesota, Illinois at Chicago Circle, and Teachers College of Columbia University) is represented in ERIC. Inclusion of such material would not close the gap entirely, but it would go far toward that goal.

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*See the Teacher Education analysis.

## STATE OF THE ART AND FUTURE TRENDS

### The Hypotheses

This study was based on two hypotheses: first, that a review of ERIC documents would yield information for a state of the art treatise; and second, that such a review would identify current trends in the field of special education. It seems that neither of these hypotheses was validated, probably because a basic assumption was violated: the assumption that the documents submitted to ERIC represent current work of high quality and broad scope. This was not true of the documents identified for learning disabilities, and perhaps for the other exceptionalities as well. This study, although well intended and probably an interesting addition to the field, was hampered by the poor quality of the information base.

In short, this analysis does not reflect the state of the art in learning disabilities, nor does it identify future trends. It merely summarizes the documents contained in the ERIC files, documents whose content is dated both in practice and theory.

### Trends in Learning Disabilities

The field of learning disabilities is the "youngest" of the exceptionalities in special education. As such, it is probably experiencing the greatest changes, and several exciting trends are evident in the professional literature. Prominent among these are:

1. Efforts to define the term "learning disability." This involves both theoretical work to identify the salient characteristics of "LD-ness" and research to identify characteristics which discriminate learning disabilities from other handicapping conditions, primarily from mental retardation and emotional disturbance.

2. A related issue is the development of valid and reliable assessment procedures.

3. Programming also is of paramount concern and the literature reflects efforts to develop efficacious means of working with learning disabled individuals. Service delivery systems that provide an alternative to resource classes are being explored.

4. There is a concerted effort to extend programming beyond the elementary school to include adolescents and adults who are learning disabled.

5. There is also a tremendous emphasis on professional advocacy in the field of learning disabilities. This includes continuing efforts to identify and validate competencies that teachers of the learning disabled are expected to exhibit and to operationalize those competencies for use in teacher training programs and in licensing and certification systems.

## SUGGESTIONS FOR FUTURE ANALYSES

Future analyses of this type are not warranted until the assumptions outlined in the previous section can be verified; that is, until an adequate information base can be secured. The extremely poor quality of the information provided by the ERIC system rendered this study virtually useless. Study might be more profitably devoted to determining procedures that would enhance the quality of the information stored in ERIC.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is not supported on the basis that information in the 124 documents is irrelevant to the current state of professional literature in the area of learning disabilities.

The editor shares the author's concern that few CLD scope papers from CEC conferences and allied organizations were in the search. An automatic acquisitions arrangement for collection and forwarding of papers from the annual international CEC conventions has been in effect since 1976. A procedure does exist for this kind of collection.

As more persons in the area of learning disabilities become aware of ERIC's potential for dissemination of information to the field, they may wish to assume an advocacy role by urging colleagues to submit their conference presentations to ERIC. Also, they may be effective in convincing other associations of which they are members to engage in automatic collection of conference papers. In these two ways, learning disabilities specialists will assure sufficient relevant documentation for accurate future analyses of the state of the art and trends in their field.

Learning Disabilities
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | X | X |
| State Education Agency | | | | X | |
| Local Education Agency | | | X | X | X |
| Teacher Education - Preservice | | | X | | X |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | | | | | |
| Regular Teacher/Class | X | X | | | X |
| Support Personnel | | X | | | X |
| Interagency Cooperation | | | | | X |
| Parent Education/Parent School Partnership | X | X | | | |
| Prevention | X | | | | |
| Assessment, Identification | X | X | X | X | X |
| Residential School/Institutions | | | | X | |
| Rehabilitation/Independent Living | | | | | |
| Models | X | X | X | X | X |
| Compilations of Research and Procedures | X | X | X | | X |
| Research with Non-School Based Goals | | X | | X | X |
| Research on General Achievement | | | | | X |

Division on Career Development (DCD)
B. Diane Wimmer

103 Abstracts

RESEARCH AND PROGRAM ACTIVITY

The greatest level of activity occurred in the "Not Specified" category (45), followed by the "Secondary" (37) and "Postsecondary" (21) categories. Only three abstracts specifically mentioned programming or research related to career development at the elementary level, and there were no abstracts related to career development in the early childhood age range. The large number of abstracts falling in the "Not Specified" category is probably misleading. These abstracts describe research, program, or policy making activities which primarily referred to vocational training, vocational assessment, or career education programming. As these are very broad topics, the abstracts did not mention specific age ranges or cover a broad age range. Since career development is a curriculum emphasis that relates to programming at all ages, this situation is not surprising. Most of the abstracts, while not specifying a specific age range, dealt with activities that would place the projects in the secondary level (e.g., vocational training, preparation for adult living).

The majority of program activities occurred in the secondary age range (22), particularly in light of the observation that most activities in the "Not Specified" category (15) probably belong in the "Secondary" category. "Postsecondary" program activities numbered 10. It is often difficult to distinguish between secondary and postsecondary activities, however, because many vocational or career development programs for handicapped populations extend beyond the normal secondary school years. Research activity, which comprised almost 50% of total activity, was also centered at the "Secondary" (14) and "Postsecondary" (13) levels. Once again, the "Not Specified" category (17) was comprised of studies relating primarily to the secondary and postsecondary categories.

The absence of any activity at the early childhood level is not surprising. The majority of early childhood programs focus on "pre-academic" skills. While most of the skills taught at this level (e.g., motor performance, social skills, discrimination tasks) obviously contribute to students' overall career development and social/vocational success, they are seldom labeled as such. The lack of activity at the elementary level (3) is, however, disturbing. It is during the elementary years that the foundations of career development are built through career awareness and career exploration activities. The current search would seem to indicate that most career development training is being put off until the secondary years. This situation may be due to a misunderstanding of the concept of career development; many people use the words vocational or occupational as a synonym for career. It may also be a result of the descriptors utilized in the ERIC system, which may only select those abstracts relating to vocational or occupational programs unless the specific terms "career education" or "career development" are used.

The principal focus categories which show the greatest activity are "Rehabilitation" (40) and "Other" (21), followed by "Assessment" (11) and "Interagency Cooperation" (7). The "Other" category was used to differentiate activities that pertained to the broader concepts of career development, career education, and career counseling, while the "Rehabilitation" category was used for activities that related specifically to vocational training or training in independent living skills. If necessary, these two categories could be collapsed, although the differentiation appears to be more meaningful. Program activities significantly outnumbered research activity in all focus categories except "Rehabilitation." In this category research comprised 52% of the overall activity, while program activity comprised 42% of the total. In all other categories there was essentially a 2 to 1 ratio of program to research activity. Program activities (54) comprised 51% of 106 total entries, while research activities (44) comprised 42%.

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

The abstracts which seemed to indicate future trends addressed a variety of topics. While some of these topics are not "new," they were selected in light of what appears to be an increased attention from the field. The basic categories are listed below:

1. Consumer evaluation of career development program options (ED 188 408).

2. Evaluation of independent living options as a social movement (ED 175 217).

3. Identification or evaluation of vocational training options/alternatives for various severely handicapped populations (ED 175 231, ED 180 144, ED 183 817).

4. Vocational evaluation/assessment as a component of career education programs in school settings (ED 185 392).

5. Need for increased interagency cooperation (vocational education, occupational education, special education, rehabilitation, business and industry) (ED 181 707, ED 181 649, ED 181 638).

6. Local, state, and federal policies/resources necessary to success of deinstitutionalization and independent living for the handicapped (ED 179 047, ED 179 743).

7. Procedures which will increase access and participation of handicapped in vocational education programs (ED 185 243, ED 179 817, ED 175 956).

8. Need for increased participation by parents in the career development process (ED 188 396, ED 181 638).

Other topics which may indicate future trends involve the use of television in promoting career development of handicapped persons, and the application of the career development concept to the mentally ill population.

## STATE OF THE ART AND FUTURE TRENDS

To summarize the state of the art in the area of career development of the handicapped is difficult. The majority of activity appears to rest at the secondary and postsecondary level, with major emphasis in the area of vocational training as opposed to a broader career development or "life career" approach. Activity relating to independent living skills appears to be primarily related to more severely handicapped populations. While there is evidence of felt need for parental involvement, there did not seem to be programmatic activity which indicated increased activity in this area. There is evidence of increased attention to vocational assessment in school settings and a definite interest in vocational training options for the severely handicapped. There is also an increase in the amount of research activity directly related to career development for handicapped populations, particularly as it relates to vocational training.

### Predicted Future Trends

1. Increased attention to career development of severely handicapped populations.

2. Increased cooperation between special education and business/industry/community.

3. Increased demand for career development training from parents of handicapped students.

4. Increased attention to career/vocational assessment techniques in school settings.

5. Increased emphasis on career development activities at elementary school level.

In general, evidence is found to support four of the five original predictions. The one prediction for which little evidence is found relates to increased activity at the elementary level.

## SUGGESTIONS FOR FUTURE ANALYSES

This activity appears to be very valuable and should be repeated every 2 years at a minimum. To strengthen the procedure, it would be extremely valuable to include a similar analysis of articles in the major journals. Most could be classified at the abstract level. An additional activity might address the "match" between the type of work which appears in journals as opposed to the ERIC system.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Emphasis on state of the art findings suggests support for Hypothesis 1. The author expresses concern for general misunderstanding and misuse of the terms "career," "vocational," and "occupational" coupled with "education" or

"development." Both "career education" and "career development" were among descriptors used in the search to capture abstracts, a fact that reinforces the author's dismay about lack of career development training reports at the elementary level.

Career Development
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | X | X |
| State Education Agency | | | X | | X |
| Local Education Agency | | | | | X |
| Teacher Education - Preservice | | | | | X |
| Teacher Education - Inservice | | | | | X |
| Special Teacher/Class | | | | | |
| Regular Teacher/Class | | | X | | |
| Support Personnel | | | X | | X |
| Interagency Cooperation | | | X | X | X |
| Parent Education/Parent School Partnership | | | | | X |
| Prevention | | | | | |
| Assessment, Identification | | | X | X | X |
| Residential School/Institutions | | | | X | X |
| Rehabilitation/Independent Living | | | X | X | X |
| Models | | X | X | X | |
| Career Counseling/Education/Development | | X | X | X | X |
| | | | | | |
| | | | | | |

Division for Children with Communication Disorders (DCCD)
Paul A. Waryas

49 Abstracts

RESEARCH AND PROGRAM ACTIVITY

The documents supplied for analysis within the scope of the Division for Children with Communication Disorders (DCCD) consisted of 49 abstracts. Of these documents, 59% were final project reports of multifaceted projects and compendia of research, and 41% were convention papers. All documents were analyzed within the matrix relating subject age/education level to principal focus category of the document within the Division scope. Annotations for programmatic material, research material, and material indicative of future trends also were used.

The greatest activity on the age/education level continuum appeared to be in the "Not Specified" category, with 30 entries on the matrix. (It should be noted that because several documents focused on more than one primary category, the total number of matrix entries exceeds the total number of documents analyzed.) Of the 30 entries, 17 did not specify age/education level and 13 specified more than one. Of the entries, 66% concerned research and 33% concerned programmatical material. The second largest area of activity was the early childhood category, with 14 entries, 10 concerning research and 4 concerning programs.

The least activity on the age/education level continuum was in the area of "Elementary," grades 1 through 8, with 5 entries, all in research.

The principal focus category showing the greatest activity was "Support Personnel" with 22 entries. Of the entries, 73% concerned research and 27% concerned programs. The support personnel targeted were, as could be expected, speech-language pathologists and audiologists working with these populations in a special education or other setting.

Several principal focus categories had no matrix entries. They included "Federal Policy," "LEA," "Teacher Education (Preservice),"* "Interagency Cooperation," and "Other." Within the scope of DCCD, none of these principal focus categories were addressed with research or programmatic material.

DCCD is made up of professionals whose employment and professional organization affiliations are broader than the area of special education. The documents available for analysis, however, reflected a somewhat restricted data base for this area. There were no documents from association conventions which focused primarily on communicative disorders such as the American Speech-Language-Hearing Association, the Alexander Graham Bell Association for the Deaf, or the American Auditory Society. No documents appeared from national conferences on communicative disorders such as the Stanford Child Language Research Forum or the Mid-South Conference on Communicative Disorders.

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*See Teacher Education Division Analysis.

Finally, no journal articles or book chapters were included in the data base. Although this final omission is not as serious as the previous two, a major portion of research and programs concerning communicative disorders appears in print, albeit delayed, that is unavailable in other forms such as convention papers, final project reports, and research reports. Inclusion of documents for these sources could easily double the data base.

A number of descriptive terms in the area of communication disorders were not evident in the descriptors of the documents analyzed. They include speech pathology, audiology, pediatric audiology, educational audiology, electrophysiologic audiometry, alternative communication systems (alternative modalities), child language, and language intervention.

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

Of the documents reviewed, several appeared to point toward future trends within the scope of DCCD. Document ED 181 690, "Cognitive Considerations in the Use of Signs with Persons Having Severe Communicative Handicaps" by Paula Menyuk, reflects the growing concern in our profession for providing a useful communication system to individuals who have great difficulty acquiring spoken language. She cites a recent AAMD survey which indicated that over 4000 communicatively handicapped individuals were getting some kind of sign training and that number would more than double shortly. Dr. Menyuk concluded that "teaching signed systems may be a winning effort regardless of presumed or real cognitive-linguistic limitations."

Document ED 175 448, "Mission of the Future. Proceedings of the Annual Convention of the Association for the Development of Computer-Based Instruction Systems. Volume II: Special Interest Groups" reflects the geometric growth of computerized technology in the educational system. The 10 papers presented to the educators of the deaf special interest group are concerned "not only with projects for teaching language/communication and writing skills to the deaf, but with access to Computer Assisted Instruction (CAI) for the blind and visually handicapped, and programs in special education."

Document ED 177 772, "Assessing Language Related Skills of Pre-Linguistic Children. Final Report. Volume III." by George F. Cairns and Earl C. Butterfield suggests that the most productive lines of research lie in the assessment of receptive language skills, expressive language skills, and perceptual and cognitive processes, based on their contention that these areas "are the most likely to predict subsequent language development of young children who have yet to speak their first word." Their report also recommends activities that should be funded in the future by the Office of Special Education.

## STATE OF THE ART AND FUTURE TRENDS

It is difficult to summarize the state of the art and indicate possible future trends in special education relevant to the DCCD Division from the current limited selections from the ERIC data base. The topics of alternative

communication modalities, computer assisted instruction, and early intervention addressed by the documents discussed are certainly representative of current and future concerns to professionals in the DCCD Division. Analysis of ERIC documents can assure the state of the art report and predict future trends within the scope of DCCD. This assurance and prediction, however, are at the present time limited by lacks in the ERIC data base. From the viewpoint of DCCD, hypotheses 1 and 2 concerning "state of the art" and "future trends" would have to be accepted with reservations based on the limited data base.

A comparison of the future trends obtained from the ERIC data base and five future trends predicted by the author from experience within the profession indicated close agreement. The author agreed with the documents described above indicating current and future interest in three areas of the profession: early intervention, multihandicapped intervention (alternative modalities), and computer assisted instruction. Two other predicted areas specific to audiology, educational audiology and electrophysiologic assessment, were not supported by ERIC documentation. It is felt that the historical association of audiology more with the medical profession than the educational profession may be a contributing factor to the discrepancy.

## SUGGESTIONS FOR FUTURE ANALYSES

A future analysis within 2 years would be most helpful in corroborating or refuting these findings. An enlarged data base is critical to accurate assessment and prediction. Also a principal focus category of "intervention" would be helpful in categorizing documents with special relevance to the Division for Children with Communication Disorders.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is supported only with great reservations due to limitations of current ERIC data base coverage of this Division's scopes of interest. In addition to educational literature, this specialty relies on medical and technological literature, which rarely finds it way into the ERIC data base. The editor shares this author's dismay at not finding conference papers from the American Speech-Language-Hearing Association and the Alexander Graham Bell Association for the Deaf, in particular, and the other mentioned organizations in general. Although individuals presenting at these associations' conferences have been invited to submit papers to ERIC and efforts have been made to collect all papers in the ERIC Clearinghouse scope from these conventions, there is some evidence that many papers are not available through any data base. At this time, journals are reported to be the only source of knowledge concerning communicative disorders. There is a need for members of this Division who are members of other closely allied associations to advocate collection of conference papers for future early inclusion in ERIC.

Descriptors used for the search are Communication Disorders, Hearing Impairments or Aurally Handicapped, Speech Handicaps, Audiology, Audiometric Tests, Deafness, Cleft Palate, Articulation Impairment, Stuttering, and Voice Disorders. The disability descriptors probably captured any abstracts in this Division's scope with one possible exception: abstracts with the

descriptor Language Handicaps were assigned to the CLD analyst, an arbitrary decision which may be arguable.

Following are field terms not found among descriptors in the search and corresponding ERIC descriptors or explanations.

| Field Terms | Descriptors |
|---|---|
| Speech Pathology | Speech Pathology |
| Audiology | Audiology |
| Pediatric Audiology | No descriptor. A combination of Audiology and Pediatrics would divulge documents with this focus. |
| Educational Audiology | No descriptor. A combination of Audiology with one of the Education descriptors would be used. |
| Electrophysiologic Audiology | No descriptor. An indexer probably would use the field term as an identifier. |
| Alternative Communication Systems (or Alternative Modalities) | No descriptor. Specific descriptors are: Total Communication; Sign Language. Identifiers may be used for specific concepts. |
| Child Language | Child Language. This is a very broad term and would be used only with a specific term. |
| Language Intervention | No descriptor. A combination of Language Handicaps and Intervention would be used. |

Communication Disorders
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | | |
| State Education Agency | | | | | X |
| Local Education Agency | | | | | |
| Teacher Education - Preservice | | | | | |
| Teacher Education - Inservice | | | | | X |
| Special Teacher/Class | X | | X | X | X |
| Regular Teacher/Class | X | X | | X | X |
| Support Personnel | X | X | X | X | X |
| Interagency Cooperation | | | | | |
| Parent Education/Parent School Partnership | | | | | X |
| Prevention | | | | | X |
| Assessment, Identification | X | X | | | X |
| Residential School/Institutions | | | | X | X |
| Rehabilitation/Independent Living | | | X | X | X |
| Models | | | | X | |
| | | | | | |
| | | | | | |
| | | | | | |

Division for Early Childhood (DEC)
Jane DeWeerd

124 Abstracts
38 Duplicates

RESEARCH AND PROGRAM ACTIVITY

Eighty-six abstracts were categorized and 110 entries made. A number of abstracts were entered into more than one category. The majority of the abstracts dealt with the early childhood age range alone (95 out of 112 entries). There were 36 abstracts categorized as Research and 59 as Program, and a few abstracts did not fit into either category. There were many abstracts describing a project or intervention technique that could not be placed in the Model category. It was not clear that these projects met the criterion of being suitable for replication. It was necessary to establish a category under "Other" for Description of Intervention Program or Technique, and this category had the largest number of entries (22). The categories break down as follows:

| | |
|---|---|
| Description of an Intervention Program or Technique (added) | 22 |
| Assessment/Identification | 19 |
| Models | 15 |
| Parent Education/Parent School Partnership | 14 |
| Integration of Handicapped and Nonhandicapped Children (added) | 8 |
| Evaluation of Effectiveness of a Program (an added category) | 7 |
| Learning Styles or Interaction Styles (an added category) | 7 |
| Prevention | 5 |
| Other | 7 |
| Federal Policy | 3 |
| LEA | 2 |
| SEA | 1 |
| Rehab/Independent Living | 1 |
| Special Teacher/Class | 1 |

There were no entries for Teacher Education,* Inservice,* Regular Teacher/Class, Support Personnel, Interagency Cooperation, and Residential School/Institutions.

Four categories were added under "Other" and there were five projects that did not fit into any of these.

The distinctions between Research and Program were often narrow, because the research was frequently gathered in a preschool program. There do not appear to be differences between the areas on the matrix represented by Program and Research, and the areas with only a very few entries were divided between Program and Research. Of course, Models and Description of Intervention Program or Technique increased the Program count. It was necessary to set up the category "Evaluation of a Program" for entries which focused clearly on effectiveness data. A total of 43 abstracts fit into these three areas (Models, Intervention Description, and Evaluation) in nearly 40% of the total number of

*See Teacher Education Division analysis.

abstracts. This represents a high level of activity which can be described as description and accountability information.

Missing areas included research on use of procedures for nonhandicapped children to be involved in working with handicapped children in other than the tutor role. The technical assistance providers for the Handicapped Children's Early Education Program had some additional conference reports to the one reported. Information on these reports is appended. Cost information on the expense of replicating early childhood projects was not presented. Special Education Programs That Work, published by the National Diffusion Network of the Department of Education (Far West Laboratory), has this information. Studies on services to newborns and infants were notably lacking, yet this is a rapidly growing area. Infant learning research and work with at-risk infants are important areas that were not represented. An estimate of missing documents would be 20%. Contributions from medically based programs are lacking.

Missing terms are neonatal, social interaction, replication, and related or supplementary services (such as physical therapy).

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

Several of the abstracts described areas which appear to indicate relatively new directions. A number of the programs described how they assisted other agencies or organizations to replicate their work, and described materials, procedures, and results. This shows a broader perspective than the larger number of programs which simply described their own work or model. The projects that discussed use of their models by others had, for the most part, funding to make assistance available to others wishing to use what they developed.

There were a few abstracts taking a statewide perspective or looking at a domain such as autism or respite care as a whole and over the full age range. Emphasis on ecology of the learning and family environments is a relatively new area with good potential for more extensive work in the future. The abstracts on programs which integrate handicapped with nonhandicapped children included a few that looked beyond comparisons of accomplishments by the two groups of children to analysis of factors that may be of key importance in this process. This search for basic factors seems of great potential importance for policy and practice if conditions are right for use of the findings. An example is the study of the relationship between the physical appearance of handicapped children and the degree of acceptance of the children by others, including persons with professional training and those who have not had such training.

Few abstracts focused directly on policy. However, the Statesmen's Roundtable continued a relatively recent trend to looking at the state of the field and suggesting ways to influence public policy in the future. The Proceedings of the Subcommittee on Childhood Experiences as Causes of Criminal Behavior by the Senate of Canada yielded potentially useful information on factors influencing some boys to become delinquent while others from the same socioeconomic group do not.

## STATE OF THE ART AND FUTURE TRENDS

The state of the art appears to be that there is a very wide range of activity and focus, from straight description of a project, sometimes with results cited, to full scale information on how to develop or replicate a program. Practitioners working directly with or directing projects seem to have authored most of these studies. There are few abstracts included which serve children below age 3. A few discuss policy directly. Persons working in related areas, such as hospital based programs, apparently do not submit many abstracts. This may be a function of the view of the scope of early education. Not many interdisciplinary activities were described, though there are many strong examples.

The five trends identified before analysis of the abstracts were family roles, the social/affective area, prevention of handicaps, interdisciplinary efforts, and the development of systems to study and implement early education. One of these, prevention, was listed and had a number of entries. Since this is an area which has theoretical support, but as yet little financial support, it appears to be an important area for more emphasis at some future time. Basic knowledge in the social-affective area is needed, and the study on physical appearance and acceptance of handicapped children is an excellent example of needed work that should be more heavily emphasized in the future. It was encouraging to see the number of abstracts focusing on parents, but the rest of the family was seldom mentioned. Several abstracts held promise for looking at systemwide change. This may assume more prominence as states assume more responsibility for early services.

ERIC documents can give a partial picture of the state of the art and can predict to some extent.

## SUGGESTIONS FOR FUTURE ANALYSES

Analysis of several years' projects at one time would provide a much more reliable base. Also, an effort to get entries from related fields, such as medically based early childhood services, would add to the comprehensiveness of the information. More material from conferences other than CEC's and NAEYC's could be solicited.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is partially supported. Omissions of documents and categories are cited to substantiate the reason for partial support.

Reports from Handicapped Children's Early Education Programs often have such poor print that the reports are virtually unreadable and certainly not reproducible. Requests for better copies elicit either similarly poor copies or no response. Sometimes the reports have little content. Therefore, a number of reports that would highlight existing projects have been rejected.

Although medically oriented literature is not within the focus of the ERIC system, any reports or conference papers with an educational thrust in a medically based program are suitable for ERIC.

Following are field terms not found among descriptors in the search and corresponding ERIC descriptors or explanations:

| Field Terms | Descriptors |
|---|---|
| Neonatal | Neonates |
| Social Interaction | Interaction combined with one of the 48 social descriptors |
| Replication | No descriptor. An appropriate identifier would be used. |
| Related Services or Supplementary Services | Ancillary School Services or Social Services or the service itself, such as Physical Therapy |

Early Childhood
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | X | | | | |
| State Education Agency | X | | | | |
| Local Education Agency | X | | | | X |
| Teacher Education - Preservice | | | | | |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | X | | | | |
| Regular Teacher/Class | | | | | |
| Support Personnel | | | | | |
| Interagency Cooperation | | | | | |
| Parent Education/Parent School Partnership | X | | | X | |
| Prevention | X | | | | |
| Assessment, Identification | X | X | | | |
| Residential School/Institutions | | | | | |
| Rehabilitation/Independent Living | X | X | X | X | X |
| Models | X | | | | |
| Description of Intervention Program/Technique | X | X | X | | |
| Other | X | X | X | X | X |
| | | | | | |

Division for Physically Handicapped (DPH)
Barbara Sirvis

41 Abstracts
58 Entries

RESEARCH AND PROGRAM ACTIVITY

The focus of both research and program documents has been on the areas of post-secondary/adult ($n$ = 21) and multigraded or ungraded programs ($n$ = 35). The majority of the documents do not indicate the age range served or serve a cross section of ages and grades.

As noted above, little focus is placed on categorically graded physically disabled populations with the exception of postsecondary education and adult disabled. Only one article focused on research and programming in the early childhood category, while none denoted elementary or secondary. Considerable attention should be placed on this fact, especially in the area of early intervention.

In the research area, the three areas given most attention are "Assessment," "Rehabilitation Technology," and "Other," which is primarily architectural accessibility. Broad interpretation was used in the assignment of these categories. However, the primary focus of literature in the area of the physically disabled seems to be on physical adaptation of either environment or technique.

In the program area, the primary focus was presentation of model programs, with several discussing the implications for homebound/hospital teachers and others considering implications for social and physical adaptation of the physically disabled with their nondisabled peers. "Other" was the second category which covered diverse programs, including recreation needs for this population and conference proceedings about diverse topics.

Several categories revealed no publications or documents: Federal Policy, Teacher Education,* Special Teacher/Class,* Regular Teacher/Class, and Prevention.

In the research area, limited documentation was available under the focus categories of LEA, Support Personnel, and Residential School/Institutions.

In program areas, limited documentation was available in the area of Assessment, especially in response to research findings and recommendations.

Although the physically disabled are considered a "low incidence population," there is an even more limited presentation of documents in the analysis. This suggests that documents, research reports, and conference papers are not reaching the ERIC Network. Yearly and final reports of projects which serve the physically disabled, at least, should be abstracted in ERIC. In addition, a limited number of CEC Conference presentations and papers from state level CEC meetings should be included. Finally, other nonspecial education professional

*See Teacher Education Division analysis.

organizations which hold annual meetings or conferences focusing on the needs of the disabled should be encouraged to submit documents to the network, e.g., National Therapeutic Recreation Society, Rehabilitation International, The Association for the Severely Handicapped.

Terms in this field which are not reflected in the descriptors assigned to the abstracts are as follows:

Physically Disabled (Physical Disabilities)
Orthotics
Prosthetics (Prostheses)
Other Health Impaired
Therapeutic Recreation (Adapted Physical Education/Recreation)
Program Accessibility (Accessibility for Disabled)
Rehabilitation Engineering
Crippled and Other Health Impaired
Augmentative Communication
Orthopedically Impaired (Under Physical Disabilities)
Physically Handicapped (Physical Disabilities)

NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

The technological advances characteristic of services and programs for development of self help independence for the physically disabled are presented in several articles in the document analysis, e.g., "Typewriter Modifications for Persons Who Are High-Level Quadriplegics," "Teaching Word Recognition to Non-Verbal Cerebral Palsied Young Adults Utilizing Word-Family Patterns and Carba-Linguaduc Electronic Communications Equipment," and "Proceedings of the Rehabilitation Information Network Conference." Technological advances and program accessibility should be the trends of the future.

STATE OF THE ART AND FUTURE TRENDS

As previously noted, documentation in the area of the physically disabled is narrow in scope and limited in number. Although the emphasis on postsecondary and career education is commendable, the documentation does not reflect the need for program implementation at early ages. The future trend of continued technological advancement is again represented, but in limited numbers. There is need for inclusion of annual reports of the network of rehabilitation engineering centers in the U.S. and similar programs in other countries. Another area of need for documentation is medical advancements; not one article addressed medical advancements in cure or prevention. With regard to models, considerable emphasis needs to be presented for dissemination.

Although conceptually sound, the ERIC system does not seem to be working for dissemination of materials specifically important or relevant for DPH members. It would seem that analysis of ERIC documents provides some general information about special education for the physically disabled but is not truly representative of the trends in programs and research represented by our commitment to this population. Although it could be said that this particular analysis provided some indicators of trends, it is not stable enough at this time to suggest utilization as a regular predictor.

Agreement was found on one significant identified trend, i.e., technological advances, specifically in the broad area of rehabilitation engineering. However, in the broad category of technological advances, the entire area of medical advancements is missed, including assessment/diagnosis, prevention, and intervention for specific medical conditions.

Another area of agreement was that of career education in its broadest definition including all preparation for postsecondary life. However, the focus of documents noted in this analysis was on the postsecondary student without recognition of the need for program implementation and student preparation far before completion of regular schooling.

A third area identified as a potential trend for the future was advocacy and legislation. Although architectural accessibility was mentioned in several research and program reports, other aspects of advocacy and legislation were neglected, e.g., program accessibility, equal employment opportunities, anti-discrimination suits.

Two expected trends which did not appear in the document analysis were movement toward definition and attainment of the least restrictive environment for the physically disabled, a population considered by many to be the most difficult to mainstream. Although two studies addressed socialization issues, the ramifications for program development were never pursued. The other trend not noted was the increasing number of students with multiple disabilities who are receiving educational services in programs for the physically disabled. Traditionally expected to have learning handicaps, physically disabled students now entering special education programs are more multiply handicapped than those who entered programs even 10 years ago. Considerable assistance is needed in this area, yet documentation does not seem to exist.

## SUGGESTIONS FOR FUTURE ANALYSES

Although this analysis was inconclusive in its attempt to delineate the state of the art for DPH, it is suggested that a 3 year time lapse be considered before implementation of a similar analysis. In the interim, DPH members and affiliate organizations should be encouraged to submit documentation.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Findings for Hypothesis 1 are inconclusive due to the few abstracts in the search for this speciality in which documentation ". . . is narrow in scope and limited in number." The editor agrees with all the author's statements in this regard.

Some documents regularly come to the ERIC Clearinghouse on Handicapped and Gifted Children from the organizations cited. Problems in selection of these documents for ERIC are their focus on the medical or rehabilitative aspect of the field with minimal emphasis on education, or denial by contributors for reproduction by ERIC.

There is some indication that professionals in this area are sharing more education related information with one another and are becoming aware of the efficacy of ERIC for dissemination of their work. If this trend continues, according to suggestions made by the author, future analyses should reflect the state of the art.

Following are field terms not found among descriptors in the search and corresponding ERIC descriptors:

| Field Terms | Descriptors |
|---|---|
| Physically Disabled | Physical Disabilities |
| Orthotics | Orthotic Prosthetic Education<br>Orthotic Technicians (terms are used as identifiers and are not descriptors) |
| Prosthetics | Prostheses |
| Other Health Impaired | Special Health Problems |
| Therapeutic Recreation | No descriptor. A combined use of Adapted Physical Education, Recreation, and one of the several Therapy terms would elicit a document with this focus. |
| Program Accessibility | Accessibility (for Disabled). This term includes programs. |
| Rehabilitation Engineering | No descriptor |
| Crippled and Other Health Impaired | No descriptor |
| Augmentative Communication | Sign Language Terms, Nonvocal Children |
| Orthopedically Impaired | Use Physical Disabilities |
| Physically Handicapped | Use Physical Disabilities |

As new terms appear often in the literature, these are proposed by a Clearinghouse for addition to the ERIC Thesaurus. Each term must be carefully researched for usage and the most accurate definition accepted in the field. Each proposed descriptor must be accepted by a review committee of Clearinghouse Vocabulary Coordinators and field users and, ultimately, by the ERIC lexicographer before it is added to the Thesaurus.

Physically Handicapped
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | | |
| State Education Agency | | | | X | X |
| Local Education Agency | | | | X | X |
| Teacher Education - Preservice | | | | | |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | | | | | |
| Regular Teacher/Class | | | | | |
| Support Personnel | | | | X | |
| Interagency Cooperation | | | | | X |
| Parent Education/Parent School Partnership | | | | | X |
| Prevention | | | | | |
| Assessment, Identification | | | | X | X |
| Residential School/Institutions | | | | | X |
| Rehabilitation/Independent Living | | | | X | X |
| Models | X | | | X | X |
| Other | | | | X | |
| | | | | | |
| | | | | | |

Division for the Visually Handicapped (DVH)
Anne L. Corn

28 Abstracts

RESEARCH AND PROGRAM ACTIVITY

Of a total of 28 abstracts, 74 entries were made in the matrix. Programs were described in 32 abstracts, with 5 or fewer abstracts in each age level column and 16 abstracts in the "Not Specified" column. Research was the focus of 39 abstracts, with 7 or less in each age level column and 18 in the "Not Specified" column.

Although many articles which did not specify age level may be appropriate for early childhood programs, there were few abstracts (Programs = 3, Research = 2) dealing specifically with this population. As states (such as Texas) provide programs for the 0-3 and 3-5 age groups, a greater portion of the literature in the field of visually handicapped may reflect programs and research. Also, the literature reviewed showed little in the way of articles which deal specifically with secondary pupils.

The largest percentage of abstracts dealt with assessment/identification procedures and tools ($n$ = 17). Assessment was discussed for all levels of education and included both visually handicapped and multiply handicapped/visually impaired children.

Many abstracts focused on methods/materials and teaching techniques ($n$ = 13) with various segments of the population. Provision of educational tools, e.g., braille book availability, seemed to be important in this country as well as in a variety of foreign countries.

The principal focus category of rehabilitation, prevocational preparation, and independent living skills ($n$ = 9) was shown to be a concern of the field.

Many abstracts addressed the needs of severely multiply handicapped/visually impaired children. This concentration of articles may reflect the field's need to provide an appropriate education for children who may not have been educated in programs designated for the visually handicapped in previous years.

The literature showed little in the way of articles that deal specifically with teacher education.* Prevention of visual handicaps and/or of secondary problems related to visual handicaps were also not available within this year's compilation of abstracts.

While the field seemed to be concerned with LEA policies regarding the role of the teacher of the visually handicapped and the future roles of residential schools for the blind, these concerns were not present in the compilation of abstracts.

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*See Teacher Education Division analysis.

## NEW MODELS, PROGRAMS, OR RESEARCH WITH SIGNIFICANT OR FUTURE IMPLICATIONS

It was interesting to note that ERIC has obtained 5 out of 28 abstracts from foreign countries, particularly those dealing with the establishment of materials centers.

There were no abstracts concerned with gifted students who are visually handicapped or with social/emotional development. However, it is important to note that this small field often looks to professional journals, projects of the American Foundation for the Blind, and professional organizations for publishing its content.

Terms used in the field not identified among descriptors in the search are low vision, functional vision, and vision stimulation.

None of the documents identified for further examination relative to potential future trends (all age/levels and Not Specified) had significant program models for the field.

## STATE OF THE ART AND FUTURE TRENDS

Although the greatest number of abstracts addressed needs of multiply handicapped/visually impaired children, other areas uppermost in the DVH Division's interests--teaching methods/materials/techniques, prevocational preparation, and assessment identification procedures and tools--were not addressed. The ERIC system, therefore, although a valuable tool for the professional, may not reflect the state of the art in literature for the field of education for the visually handicapped. Similarly, the present analysis may not accurately predict future trends, although some areas indicate possible trends.

Five trends were identified: better assessments for better service delivery, utilization of vision programs, programs for multiply handicapped, use of technology, and emphasis on preschool education. In addition to these five trends, the field is beginning to address the need for programs for visually handicapped gifted children. Two of the five trends have corroboration from the compilation: programming of multiply handicapped and aspects of assessment. Not identified but emergent in the compilation is a focus on methods, materials, and teaching techniques as well as on rehabilitation, prevocational preparation, and independent living skills.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is not supported. This is a difficult field to document because it has a small population and much of the research involves sensory aids and technological development for education to occur. That only 28 abstracts appeared in the search is not surprising. The few journals for the field cover research and programs extensively. Nevertheless, a small but respectable body of literature appears to be accumulating in the ERIC data base which should grow sufficiently with time for a more extensive analysis of the state of the art.

Following are field terms not found among descriptors in the search and corresponding ERIC descriptors or explanations.

| Field Terms | Descriptors |
| --- | --- |
| Low Vision | Partial Vision |
| Functional Vision | No descriptor |
| Vision Stimulation | A combination of Partial Vision and Stimulation would elicit documents with this focus. |

Visually Handicapped
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | X | X | X | X | X |
| State Education Agency | | | | | X |
| Local Education Agency | | | X | | |
| Teacher Education - Preservice | | | | | |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | | | X | X | X |
| Regular Teacher/Class | | | | X | |
| Support Personnel | | | | X | X |
| Interagency Cooperation | | | | | X |
| Parent Education/Parent School Partnership | | | | | X |
| Prevention | | | | | |
| Assessment, Identification | X | X | X | X | X |
| Residential School/Institutions | | | X | | |
| Rehabilitation/Independent Living | | | X | X | X |
| Models | | X | | | X |
| Concept Development | X | | X | X | X |
| Methods/Materials | X | X | X | | X |
| | | | | | |

The Association for the Gifted (TAG)
Felice Kaufmann

82 Abstracts

## RESEARCH AND PROGRAM ACTIVITY

An analysis of the documents concerned with education of the gifted and talented revealed certain predominant trends as well as notable deficits in the field. The greatest activity in a specified age/education level was in the elementary category ($n$ = 17). This focus was also evident in research ($n$ = 8) and programs ($n$ = 9). The least activity took place on the early childhood level ($n$ = 7), although in research the least frequented category was secondary ($n$ = 2) and in programming, postsecondary ($n$ = 3). These figures represent only those documents that emphasized the particular age/education level, excluding citations that concerned a broad age/education range. These findings are compatible with the prevailing trends in gifted education which emphasize programs for elementary age students because of assumed implementation difficulties at the other levels.

The principal focus categories that attracted the most attention were assessment/identification ($n$ = 19) and LEA programs ($n$ = 17). These also represented, respectively, the main research ($n$ = 14) and program ($n$ = 17) efforts. The categories that showed the least activity were teacher education* and parent education with no citations, followed by federal policy, special teacher/class, regular teacher/class, support personnel, and interagency cooperation, with one reference each. These figures do not include those articles in which these categories are incidentally referenced.

To the extent of the reviewer's knowledge, the search was comprehensive. The only obvious omission was the Conference Proceedings of the National Association for Gifted Children (Minneapolis, 1980). The descriptors were likewise inclusive of the majority of terms that are germane to the field.

## STATE OF THE ART AND FUTURE TRENDS

As suggested by Hypothesis 2, certain articles clustered together in categories that could be considered future trends. All of these categories were among those initially identified by the reviewer as new directions. These categories were: involvement of persons outside the school, such as parents and mentors; identification and programming for the culturally disadvantaged and handicapped; the expanded definition of giftedness, including specific academic aptitude, performing and visual arts, leadership, and creative/productive thinking; lifelong identification and programming, with an emphasis on preschool and postsecondary; and teacher education. Each of these trends reflects the movement of gifted education away from the single emphasis of intelligence toward a more dynamic, multidimensional concern.

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*See Teacher Education Division analysis.

In a relatively new field such as gifted education, all types of research and programming are necessary. It is only through these efforts that credibility and direction for the field will be established. The fact that LEA programs, assessment/identification, and curriculum efforts prevail in the ERIC search does not imply that these areas are the most significant, but that other categories are replete with possibilities for exploration. That seven major categories showed one or no citations indicates that there is an especially critical need for efforts in those directions.

## SUGGESTIONS FOR FUTURE ANALYSES

It would seem that, in confirmation of Hypothesis 1, analysis of ERIC documents does portray an accurate state of the art. However, the search would be strengthened considerably if documents other than those in the ERIC system, such as special education and psychology journals, were also reviewed. Further, it would be advantageous in the future if the information could be widely disseminated so that appropriate research and programming efforts, based on assessment of gaps in the literature, could follow.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is supported.

Considerable difficulty has been encountered in obtaining proceedings or papers from conferences on the gifted. Proceedings or papers from the 1980 NAGC conference in Minneapolis were not processed by the time the search was conducted for this analysis.

Support for initiation of automatic collection of papers from future conferences on the gifted will strengthen the literature base in ERIC and assure availability of conference papers at an early date.

The Gifted
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | | X |
| State Education Agency | | | | | X |
| Local Education Agency | X | X | X | X | X |
| Teacher Education - Preservice | | | | | |
| Teacher Education - Inservice | | | | | |
| Special Teacher/Class | | | | | X |
| Regular Teacher/Class | | | | | X |
| Support Personnel | | | | X | |
| Interagency Cooperation | | X | | | |
| Parent Education/Parent School Partnership | | | | | |
| Prevention | | | | | |
| Assessment, Identification | X | X | X | X | X |
| Residential School/Institutions | | | | | |
| Rehabilitation/Independent Living | | | | | |
| Models | X | | | | |
| Other | X | X | X | X | X |
| Curriculum | | X | X | X | X |
| | | | | | |

Teacher Education Division (TED)
Robert G. Simpson

42 Abstracts

## RESEARCH AND PROGRAM ACTIVITY

Of all the abstracts examined in this analysis, 21 were judged to have a research focus. Along the "Age/Education Level" continuum, the greatest research activity occurred in the "Not Specified" category (9 entries). There were 6 entries in the "Secondary" category and 4 in "Early Childhood." Based on analysis of the ERIC system entries, the least amount of research activity occurred in the "Postsecondary" category, as there were no entries.

There were 49 entries in the analysis matrix that described programs, and most of these entries occurred in the "Age Not Specified" category (38 entries). Seven entries were related to "Secondary" programs and 3 concerned "Early Childhood." The least amount of program activity was at the "Elementary" level, as there were no entries. There was only one program entry at the "Postsecondary" level.

Viewing the matrix along the "Principal Focus Category" continuum revealed that the greatest amount of research activity occurred in the "Regular Teacher/Class" category, where there were 8 entries out of a total of 21. No research entries appeared in the following categories: Federal Policy, LEA, Support Personnel, Parent Education-Parent/School Partnership, Prevention, and Residential School/Institution.

Of the 42 abstracts analyzed, 15 were judged to contain information relevant to a future trend within the scope of the Teacher Education Division. Given the analysis procedures, some abstracts are cited more than once. Counting multiply cited abstracts, there were no entries indicative of future trends.

## STATE OF THE ART AND FUTURE TRENDS

Five general future trends were identified as a result of the analysis. As could be expected, each future trend of the 1980's has its roots planted in events of the 1970's. Following are five future trends derived from the abstract analysis:

1. Inservice education. Nine abstracts were judged to be indicative of this trend. Public Law 94-142 has generated a host of inservice needs for both regular and special education personnel. Continuing efforts will be made to determine and provide appropriate competencies for teachers of handicapped children. Ways to foster awareness and positive attitudes on the part of regular education teachers will also be explored.

   A related issue will be the role of institutions of higher education in providing the inservice needs of teachers. Discussion may center around inservice content, method of presentation, geographical location, and the nature of relationships between IHE's and state and local education agencies.

2. Attitudes toward integration of handicapped students into the educational mainstream. Six abstracts were judged to indicate this trend. This issue obviously has its roots in the 1970's and is related to the first trend discussed above. For P.L. 94-142 to have maximum impact, the awareness and attitudes of regular education personnel must be positive toward handicapped students and their integration into the educational mainstream.

3. Preservice training of special education teachers. Three abstracts were judged to be indicative of this trend. Based on the analysis, there will possibly be an increased emphasis on practical training of preservice teachers, to include more practica and internships in on-the-job situations. A side effect will be increased interagency cooperation between IHE's, SEA's, and LEA's.

4. Teacher burnout. Two abstracts were judged to be indicative of this trend. The causes and possible solutions for the problem of teacher burnout will continue to be explored in the 1980's. Legal, financial, emotional, and/or stress related factors may be examined as possible causes. A side effect will be the continued examination of the supply of and demand for special education teachers.

5. Certification requirements. One abstract was indicative of this trend. There will be continued discussion concerning the certification requirements for both special and regular education teachers. The "crosscategorical versus categorical" issue will be discussed with regard to certification of special education teachers. A continuing issue will also be the extent to which regular educators should be trained, or retrained, to teach handicapped students in the mainstream.

Based on the abstract analysis, P.L. 94-142 remains the dominant force in special education and will probably continue so throughout most of the 1980's. Several possible future trends have been presented in this paper; but some relationship can be found between each of them and P.L. 94-142. In teacher education, it appears that some issues will always be with us: (a) How will teachers be trained? (b) What will they be trained to do? (c) Who will train them? (d) What attitudes do teachers have and how can teachers be encouraged to develop positive ones? In the 1980's, future trends will be determined by the manner in which P.L. 94-142 influences these rather durable issues in teacher education.

With regard to the method prescribed for this analysis, it appears that both Hypotheses 1 and 2 can be generally supported. At the national TED conference in January 1981, several of the conference participants discussed issues that could indicate trends for the future. Among those issues discussed were: (a) certification standards, (b) practicum requirements for preservice teachers, (c) inservice training, (d) teacher burnout, (e) legislation and litigation pertaining to education of the handicapped, and (f) supply of and demand for special education teachers. There is considerable overlap between the issues discussed at the TED conference and the trends predicted as a result of the ERIC abstract analysis. Thus, it is reasonable to conclude that analysis of the ERIC documents submitted for 1 year is one way to determine a general state of the art in special education (Hypothesis 1). Hypothesis 2 was that

five future trends could be derived from an analysis of ERIC abstracts published over a 1 year period, and such a task was completed in the present analysis.

## SUGGESTIONS FOR FUTURE ANALYSES

One variable possibly affecting the results of the present analysis is the extent to which articles submitted for publication in professional journals, and hence not published in the ERIC system, would have affected the tabulations and, therefore, the conclusions in the present analysis. It is possible that more research articles are submitted to professional journals than to ERIC, and research articles submitted to ERIC may have already been submitted to other sources and therefore be dated.

The validity of future attempts to assess the state of the art and trends in special education might be increased if, in addition to ERIC abstracts, abstracts of all articles published in special education journals during a given year were also analyzed. Obviously, the turnaround time for publication in professional journals must also be considered. Otherwise, the analysis procedures used in the present effort to accomplish such a difficult task appear to be reasonably valid.

## EDITOR'S COMMENT ON FINDINGS FOR HYPOTHESIS 1

Hypothesis 1 is supported.

In regard to the author's concern that research articles in ERIC may have been submitted to other sources and thus be dated, this rarely occurs. Prior to selection of any document for ERIC, a thorough search is made of all previously accepted journal and document literature. Any previous entries by the same author that contain information similar to information in the document to be reviewed are cited for the reviewer's comparison. The research paper under consideration may address the same study; however, to be included in ERIC it must contain information substantially different from the previous presentation.

Teacher Education
Program and Research Activity

| x = Activity Blank = No Activity | Early Childhood | Elementary | Secondary | Post-Secondary | Not Specified |
|---|---|---|---|---|---|
| Federal Policy | | | | | |
| State Education Agency | | | | | X |
| Local Education Agency | | | | | |
| Teacher Education - Preservice | | | X | | X |
| Teacher Education - Inservice | X | | | X | X |
| Special Teacher/Class | X | | X | | X |
| Regular Teacher/Class | X | X | X | | X |
| Support Personnel | | | | | |
| Interagency Cooperation | | | | | X |
| Parent Education/Parent School Partnership | | | | | X |
| Prevention | | | | | |
| Assessment, Identification | X | | | | X |
| Residential School/Institutions | | | | | |
| Rehabilitation/Independent Living | | | X | | X |
| Models | | | X | | X |
| | | | | | |
| | | | | | |
| | | | | | |

## SUMMARY OF FINDINGS FOR HYPOTHESIS 1

Findings across Divisions for Hypothesis 1 are tabulated below:

| Support | Partial Support | Inconclusive | No Support |
|---|---|---|---|
| CEC-MR (inferred) | CASE | DPH | CLD |
| DCD | CCBD | | DVH |
| TAG | CEDS | | |
| TED | DCCD | | |
| | DEC | | |
| 4 | 5 | 1 | 2 |

Main reasons expressed for partial support or inconclusive evidence to support the hypothesis were:

1. Some difficulty with sorting abstracts into the matrix;

2. A yearning for traditional journal literature which was excluded in the model; and

3. Omission of known documentation.

All of the 12 Division analysts indicated that, with refinement of the methodology and increased attention to submission of documents to ERIC, a more accurate state of the art analysis could be performed in the future.

## SUMMARY OF FINDINGS FOR HYPOTHESIS 2

Findings across Divisions for Hypothesis 2 are tabulated below:

| Support (5 of 5) | Partial Support | No Support |
|---|---|---|
| CASE | CCBD | CLD |
| TAG | CEC-MR | DVH |
| TED | CEDS | |
| | DCD | |
| | DCCD | |
| | DEC | |
| | DPH | |
| 3 | 7 | 2 |

Although all analysts identified at least one area in which a trend might be developing, only three analysts felt secure in giving Hypothesis 2 unqualified support. The seven analysts who identified at least three possible trends approached this hypothesis with scholarly hesitancy by partially supporting the hypothesis.

Lack of a previous analysis for comparison of trends seemed to be a problem in all 12 specialty areas. Nevertheless, all analysts inferred support for the model if suggested refinements were incorporated prior to future analyses.

TRENDS

X = Corroboration by analysis results.

CASE

X 1. SE Administrator role (Functional Needs of Students, Noncategorical Programs).

X 2. Program Organization and Administration (Continuum of Services with Emphasis on Consultation through Regular Education).

Analysis Trend: Emphasis on Specific Program Variables.

X 3. Accelerating Program Costs (Greater Reliance on Local Revenue Versus State and Federal).

Analysis Trend: Costs Related to Programs, not Who Would Bear Costs.

X 4. Underserved Population (Adjudicated, Institutionalized, Profoundly Handicapped).

Not Identified Emergent Trend

X 1. Staff Development Activities.

CCBD

X 1. Parent Professional Communication (Parent Involvement in School Setting).

Analysis Trend: Young Children but not Elementary and Secondary.

2. Data Based IEP Development Implementation and Monitoring.

X 3. Affective Education Programs/Research.

Analysis Trend: Some, but with focus on Behavior Modification.

4. Decrease in LRE for Behaviorally Disordered.

X 5. Alternative Education.

X 6. Vocational Assessment and Training

TRENDS (Continued)

X = Corroboration by analysis results.

CEC-MR

X 1. Deinstitutionalization.

2. Generic Teacher Training.

X 3. Parental Involvement.

X 4. Models for Severely/Profoundly Handicapped.

X 5. Unbiased Assessment.

CEDS

X 1. Prevention (Early Identification Planning, Intervention).

X 2. Habilitation (Vocational, Career, Independent Living).

X 3. Resource Pooling Activities (Agency Linkages, Cooperative Planning and Programming).

X 4. Assessment (Differential Diagnosis, Technical Adequacy of Measurement, Evaluation Techniques, Discrimination and Attitudes).

X 5. Parent Involvement (Parent Training, Education, Counseling, IEP Skills, Test Interpretation Skills, Responsibilities and Rights).

CLD

1. Definition of the Term, Learning Disabled.

2. Valid and Reliable Assessment Procedures.

3. Programming - Alternative to Resource Class.

4. Programming - Secondary and Adult.

5. Professional Advocacy and Competency.

DCD

X 1. Career Development of S/P.

X 2. Cooperation Between Special Education and Business/Industry/Community.

TRENDS (Continued)

X = Corroboration by analysis results.

DCD (Continued)

X 3. Parent Demand for Career Development Training for Handicapped Children.

X 4. Attention to Career/Vocational Assessment Techniques in School Settings.

5. Career Development Activities at Elementary Level.

DCCD

X 1. Early Intervention.

X 2. Multihandicapped Intervention.

X 3. Computer Assisted Instruction.

4. Educational Audiology.

5. Electrophysiologic Audiology.

DEC

1. Family Roles.

Analysis Trend: Emphasis on Parents, Few on Family.

2. Social/Affective Area.

X 3. Prevention of Handicap.

X 4. Interdisciplinary Efforts.

X 5. System Development for Study and Implementation of Early Education.

DPH

X 1. Technological Advances; Minus some Medical Aspects.

X 2. Career Education (Earlier than Postsecondary).

X 3. Advocacy and Legislation.

4. LRE for Physically Handicapped.

5. Multiply Handicapped in Special Programs.

TRENDS (Continued)

X = Corroboration by analysis results.

DVH

X 1. Better Assessment for Service Delivery.

2. Utilization for Vision Programs.

X 3. Programs for Multihandicapped.

4. Use of Technology.

5. Preschool Education.

Not Identified Emergent Trends

1. Methods, Materials, and Teaching Techniques.

2. Rehabilitation, Prevocational Preparation, and Independent Living Skills.

TAG

X 1. Involvement of Persons Outside School (Parents and Mentors).

X 2. Identification and Programming for Gifted Culturally Different and Handicapped.

X 3. Expanded Definition of Giftedness.

X 4. Lifelong Identification and Programming/Emphasis on Preschool and Secondary.

X 5. Teacher Education.

TED

X 1. Certification Standards.

X 2. Practicum Requirements for Preservice.

X 3. Inservice Training.

X 4. Legislation and Litigation Pertaining to Education of Handicapped.

X 5. Supply of and Demand for Secondary Education Teachers.

## SUGGESTIONS FOR FUTURE ANALYSES

| Bi-Annually | 2 Years | 3 Years | Time Not Specified | No Recommendation |
|---|---|---|---|---|
| 1 | 4 (1)* | (1) 2* | 5 (but support inferred) | 1 |

Suggestions for future analyses included:

1. Minute details for improvement of the model.
2. More than one analyst for a specialty.
3. A preliminary "match" study between the type of work appearing in journal literature and categories of ERIC documents used in the model.
4. Inclusion of ERIC journal literature.
5. Greater submission to ERIC in specific areas now in progress.
6. More than one year's inclusion for a more reliable document base.

One suggestion for the current analysis specified wide distribution for appropriate research and programming efforts.

*One analyst specified 2 to 3 years.

APPENDIX

ERIC®

The ERIC Clearinghouse on Handicapped and Gifted Children

To: All Division Analysts:

| | | | |
|---|---|---|---|
| CASE | Dr. Robert L. Guarino | DCLD | Dr. Linda Brown |
| CCBC | Dr. Steve Imber | DEC | Dr. Jane deWeerd |
| CEC-MR | Dr. Donna Tynan | DPH | Ms. Barbara Sirvis |
| CEDS | Dr. R. C. Taylor | DVH | Dr. Ann Corn |
| DCD | Dr. Diane Wimmer | TAG | Dr. Felice Kaufmann |
| DCCD | Dr. Paul Waryas | TED | Dr. Robert Simpson |

From: Marion Cambel, Product Initiator for Information Analysis Product #1-80

Subject: Analysis of documents for Exceptional Child Education Report: Special Education Trends, 1980 (IAP #1-80)

Date: December 12, 1980

I am using this approach for communicating with all of you so that each may know who your counterparts are in the other divisions and, also, to insure that everyone receives the same information.

Responses from your division presidents, presidents-elect, and from each of you have been heartening and exciting.

We have done some preliminary experimenting with the analysis model but there still may be some glitches. If you find some step to be cumbersome or difficult, please call me and we will attempt to work out the problem and send a memo to each of you regarding any changes in approach.

We are somewhat behind in the time schedule I specified in my telephone communication. Even so, our goal still is publication by the CEC Convention in April. If you possibly can complete the work by mid-January, our work at CEC will be facilitated. Deadline for return of all materials is January 31st.

Attachments:

1) Document Analysis for Exceptional Child Education Report: Special Education Trends, 1980 (includes background information and guidelines for analysis)
2) Matrix
3) Search (abstracts in your division scope of interest)
4) Information about authors



The Council for Exceptional Children

1920 Association Drive, Reston, Virginia 22091 • (703) 620-3660

DOCUMENT ANALYSIS FOR EXCEPTIONAL CHILD EDUCATION REPORT:
SPECIAL EDUCATION TRENDS, 1980

## INTRODUCTION

For several years, CEC staff have considered use of the ERIC system to assess the state of the art in special education. Accordingly, in the FY 80-81 continuation proposal for the ERIC Clearinghouse on Handicapped and Gifted Children, this kind of study was outlined for one of the ten Information Analysis Products (IAP's) proposed.

As stated in the proposal, the purpose of the IAP is "to analyze selected ERIC documents that have come into the system during the past year; e.g., research reports, project final reports, and conference presentations, in order to predict special education trends for the future." These categories of documents contain the most recent information available in the field. Their availability through ERIC enhances their currency because ERIC has a turnaround time (from arrival of a document in a Clearinghouse to its availability in the ERIC Microfiche Collection) which averages five months. Turnaround time of journal articles ranges from four months to two years. Books and published conference proceedings have similar lengthy turnaround times.

Contents of the IAP were outlined to include "description of document selection procedures, categorization of documents, analysis and synthesis of content, and discussion of trends."

## MODEL FOR STUDY

Two hypotheses formed the basis of this research:

1. Analysis of project final reports, research reports, and conference presentations submitted to ERIC during the last year will result in a summary of the current state of the art in special education.

2. The analysis will identify at least five trends in research and/or programs in special education.

Because an analysis of this nature requires the expertise of professional persons in different areas of special education, the possibility of tapping excellent resources among CEC's Divisions seemed eminently appropriate. This could be achieved, it was thought, by use of a modified Delphi technique.

The president and president-elect of each CEC Division were queried for names of Division members who:

1. Would be interested in analyzing selected documents in their Divisions' scopes of interest; and

2. Are known for their analytic skills.

Of the names presented, one person from each Division was chosen on the basis of Division president, president-elect recommendation and/or CEC staff prior knowledge of the person's proven ability to synthesize and present information (ERIC documents, journal articles, contributed chapters, CEC projects). These persons accepted the task on the basis of the following:

1. A search for the documents specified would be made of all ERIC holdings submitted between December 1979 and November 1980. This search would be divided according to CEC Divisions' scopes of interest.

2. Each analyst would receive the portion of the search pertaining to his/her Division.

3. Each analyst would receive guidelines for analysis of the documents.

4. The search and guidelines would be sent to each analyst between the middle and end of November for the analysis to be completed and returned by mid-January.

## THE SEARCH

A computerized search of the ERIC data base for all ERIC documents bearing major descriptors, in the Divisions' scopes, submitted between December 1979 and November 1980, yielded a total of 591 documents.

In developing the search strategy, the question of force-fitting documents into Divisions' scopes of interest versus overlapping documents (one document being included in more than one Division's search portion) was examined. Dr. Stanley L. Helgeson of the ERIC Clearinghouse for Science, Mathematics, and Environmental Education stated that in their Clearinghouse's analysis of research, field analysts were split in their support of the two strategies. Discussion among CEC staff resulted in favor of the overlapping strategy on the basis of the need to ascertain whether research or programs have been conducted in specific areas within the Divisions' scopes of interest. Including overlapping abstracts, the total number of abstracts in the search is 1,007.

## THE MATRIX

This section may be found on page 76.

## GUIDELINES

1. Before proceeding with further reading of these guidelines, please do the following:

   Identify and write five future trends that you feel are germane to your Division's scope.

2. Sorting Abstracts into the Matrix

Purpose: By examining each abstract and placing it in the most appropriate slot in the matrix, you should be able to easily determine what kind of research or programs have been conducted in specific areas for specific age/education levels within your Division's scope. Also, some abstracts may reveal unusual information indicative of future trends.

2.1 Study matrix.

2.2 Read each abstract. Starred descriptors are helpful; however, hints are embedded in the title and word arrangement in the body of the abstract and often determine placement. (See sample abstract.)

2.3 Enter abstract number and codes (research = R, program = P, future trends = F) in the appropriate age/education column opposite the most pertinent main focus category. If the abstract appears to address two principal focus categories, precede the abstract number with:

(1) first use for a category, and

(2) second use in another category

Some abstracts may be classified as both program (P) and research (R) as well as indicative of future trend (F).

Example:

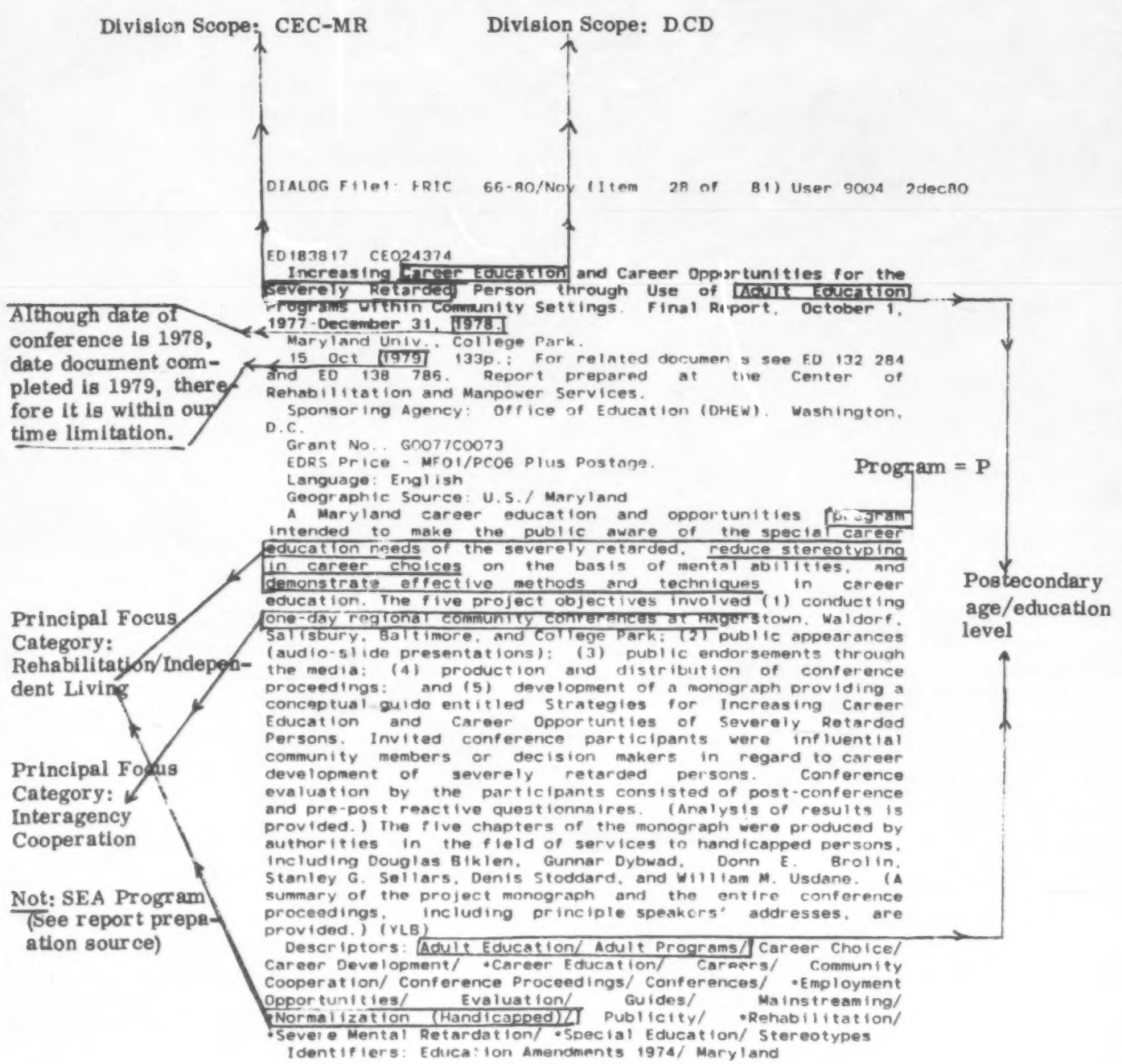
| Principal Focus Category | Early Childhood | Elementary |
|---|---|---|
| Parent Education<br>Parent/School Partnership | (1) ED 000000P | |
| Interagency Cooperation | (2) ED 000000P | |

2.4 The code F (future trends) should be used for any document which has unusual or trend indicative information. You may wish to examine the microfiche for F coded documents to further study the contents. Microfiche are in your nearby ERIC Microfiche Collection.

2.5 It is hoped that most of the abstracts will be placed in specifically labeled slots and that few will be relegated to the "Not Specified" column and "Other" principal focus category.

3. Tally information. Obviously, some Divisions will not have documents in certain slots. For example, early childhood documents will locate mainly in the early childhood column.

# SAMPLE ABSTRACT


Division Scope: CEC-MR
Division Scope: D.CD
DIALOG File1: ERIC 66-80/Nov (Item 28 of 81) User 9004 2dec80
ED183817 CE024374
Increasing Career Education and Career Opportunities for the Severely Retarded Person through Use of Adult Education Programs Within Community Settings. Final Report, October 1, 1977-December 31, 1978.
Maryland Univ., College Park.
15 Oct 1979 133p.; For related documents see ED 132 284 and ED 138 786. Report prepared at the Center of Rehabilitation and Manpower Services.
Sponsoring Agency: Office of Education (DHEW), Washington, D.C.
Grant No.: G007700073
EDRS Price - MF01/PC06 Plus Postage.
Language: English
Geographic Source: U.S./ Maryland
A Maryland career education and opportunities program intended to make the public aware of the special career education needs of the severely retarded, reduce stereotyping in career choices on the basis of mental abilities, and demonstrate effective methods and techniques in career education. The five project objectives involved (1) conducting one-day regional community conferences at Hagerstown, Waldorf, Salisbury, Baltimore, and College Park; (2) public appearances (audio-slide presentations); (3) public endorsements through the media; (4) production and distribution of conference proceedings; and (5) development of a monograph providing a conceptual guide entitled Strategies for Increasing Career Education and Career Opportunities of Severely Retarded Persons. Invited conference participants were influential community members or decision makers in regard to career development of severely retarded persons. Conference evaluation by the participants consisted of post-conference and pre-post reactive questionnaires. (Analysis of results is provided.) The five chapters of the monograph were produced by authorities in the field of services to handicapped persons, including Douglas Biklen, Gunnar Dybwad, Donn E. Brolin, Stanley G. Sellars, Denis Stoddard, and William M. Usdane. (A summary of the project monograph and the entire conference proceedings, including principle speakers' addresses, are provided.) (YLB)
Descriptors: Adult Education/ Adult Programs/ Career Choice/ Career Development/ *Career Education/ Careers/ Community Cooperation/ Conference Proceedings/ Conferences/ *Employment Opportunities/ Evaluation/ Guides/ Mainstreaming/ *Normalization (Handicapped)/ Publicity/ *Rehabilitation/ *Severe Mental Retardation/ *Special Education/ Stereotypes
Identifiers: Education Amendments 1974/ Maryland
Although date of conference is 1978, date document completed is 1979, therefore it is within our time limitation.
Program = P
Postecondary age/education level
Principal Focus Category: Rehabilitation/Independent Living
Principal Focus Category: Interagency Cooperation
Not: SEA Program (See report preparation source)

3.1 Tally all columns vertically (early childhood, elementary, secondary, postsecondary, not specified). These tallies indicate the number of documents for each age/education level.

3.2 Tally all P's and R's vertically. These tallies will give the number of programs and research oriented documents for each age/education level.

3.3 Tally all categories horizontally.

3.4 Tally all P's and R's horizontally.

3.5 Tally and identify all blank squares opposite principal focus categories. This identification should indicate areas where no program or research activity has occurred in the last year.

4. Examine all F coded abstracts and their microfiche for unusual information or trends.

5. Write a 3-4 page analysis including statistics and commentary on the following questions:

(Questions have been omitted because they are included in front matter.)

Information About Authors

For

Exceptional Child Education Report: Special Education Trends, 1980

Names of contributing authors will be on the title page and listed on a separate page in the front matter with information on division status and professional affiliation. For accuracy, would you please complete the following blanks.

Print your name as you want it to appear on the title page:

_____

Print information as you want it to appear on the page giving authors' professional affiliation:

_____

Division Acronym:_____ Member: _____yes _____no

Office held presently_____

Professional Affiliation:

Your title:_____

_____

Name of University, School, or Organization:_____

_____

Name of College of Division:_____

_____

Name of Department or Unit:_____

_____

Address:_____

_____

Other pertinent information:_____

_____

| PRINCIPAL FOCUS CATEGORY | EARLY CHILDHOOD (Birth to age 7 years. Tends to overlap with elem., therefore for purpose of this analysis, cutoff follows kindergarten) | ELEMENTARY (Grade 1 thru 8) | SECONDARY (Grade 9 thru 12) | POSTSECONDARY (Beyond grade 12 including programs funded by LEA) | NOT SPECIFIED (Age term not given or more than one age term included) |
|---|---|---|---|---|---|
| FEDERAL POLICY (Focus is on the policy.) | | | | | |
| SEA (Federal policy implementation; state programs, guidelines, research, schools, administrators) | | | | | |
| LEA (Federal and state policy implementation; county, district, township, city programs, guidelines, research, schools, administrators) | | | | | |
| TEACHER EDUCATION (Preservice; programs offered at higher education level) | | | | | |
| (Inservice; programs offered by schools, districts at SEA and LEA levels) | | | | | |
| SPECIAL TEACHER/CLASS (Teacher trained in special education) | | | | | |
| REGULAR TEACHER/CLASS (Teacher not trained in special education who has handihapped students in class) | | | | | |
| SUPPORT PERSONNEL (Individuals within the school hierarchy other than special education teacher who work with handicapped students, e.g., speech teacher, physical therapist, school psychologist, aides, paraprofessionals) | | | | | |
| INTERAGENCY COOPERATION (Cooperation between school entities such as community agencies, e.g., welfare, child abuse, clinics, and state agencies, e.g., vocational rehabilitation, special schools) | | | | | |

| PRINCIPAL FOCUS CATEGORY | EARLY CHILDHOOD (Birth to age 7 years. Tends to overlap with elem., therefore for purpose of this analysis, cutoff follows kindergarten) | ELEMENTARY (Grade 1 thru 8) | SECONDARY (Grade 9 thru 12) | POSTSECONDARY (Beyond grade 12 including programs funded by LEA) | NOT SPECIFIED (Age term not given or more than one age term included) |
|---|---|---|---|---|---|
| PARENT EDUCATION; PARENT/SCHOOL PARTNERSHIP (Involvement of administration, special or regular teachers, or support personnel with parents or families of handicapped and/or gifted students to improve parents' understandings of student's needs and education, and thus to improve the student's education) | | | | | |
| PREVENTION (Medical or behavioral actions to prevent initial disability and/or actions to prevent a secondary disability often in early childhood) | | | | | |
| ASSESSMENT, IDENTIFICATION (Any use of formal or informal procedures to find out ability level in cognitive, physical, social, emotional, sensory domains for placement in least restrictive environ.) | | | | | |
| RESIDENTIAL SCHOOL/INSTITUTIONS (State, county, or district schools for persons with specific disabilities, e.g., blind, deaf, mentally retarded, juvenile delinquents; hospital schools for severely physically handicapped, private schools/institutions with focus on specific disability) | | | | | |
| REHABILITATION/INDEPENDENT LIVING (Includes residential schools, secondary schools with vocational/career programs; vocational rehabilitation agency programs) | | | | | |
| MODELS (Programs or procedures appropriate for replication) | | | | | |